103

FUTURE OF SATELLITE-BASED SERVICES
(Part 2)

Y 4. EN 2/3: 103-144

Future of Satellite-Based Services,...

HEARING

BEFORE THE

SUBCOMMITTEE ON
TELECOMMUNICATIONS AND FINANCE

OF THE

COMMITTEE ON
ENERGY AND COMMERCE
HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRD CONGRESS

SECOND SESSION

JULY 28, 1994

Serial No. 103–144

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FUTURE OF SATELLITE-BASED SERVICES

THURSDAY, JULY 28, 1994

House of Representatives,
Committee on Energy and Commerce,
Subcommittee on Telecommunications and Finance,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:48 a.m., in room 2123, Rayburn House Office Building, Hon. Edward J. Markey (chairman) presiding.

Mr. Markey. Good morning.

There are roughly 150 satellites in orbit around the planet. These satellites bring us weather reports, television news and information, and phone calls from friends and business associates half a world away. Within the next 10 years, however, we could have almost 10 times the number of satellites, offering voice, data, video, hand-held, mobile, and broadband communications, from Alaska to Zimbabwe.

In short, satellite entrepreneurs will be compelling communications policymakers to boldly go where no policymakers have gone before. We are at the beginning of a new era in satellite communications. One that will form the backbone of the global information infrastructure.

In many ways, the satellites that may soon ring the heavens will bring benefits and changes here on earth more profound than many of us today can even imagine.

Remote and developing areas of the world will benefit greatly from the technological wizardry that a number of U.S. companies hope to send into orbit. The next generation of satellites will offer everything from direct-to-home broadcast video to Dick Tracy style wristwatch beepers and phones.

Third World countries could skip a technological step in their development through the advent of new satellite-based services. The prospects for stringing fiber lines over the Andes or through rain-drenched jungles in the Third World is dim.

In the Third World there is an average of 62 people per telephone. In China there are 1 billion people but only 10 million phones. Satellite technology is the answer.

Offering communication links to serve far-flung villages and communities is not just an eleemosynary endeavor we should undertake, but rather it represents a huge opportunity for American companies.

Here at home, ensuring a competitive satellite market helps to ensure U.S. preeminence in satellite technology and services. These are the jobs our country needs to create in a post-GATT, post-NAFTA world.

As a country, we should look at satellite manufacturing and services as a sort of a global village cottage industry for the United States. It is good business. And the prototypical satellite industry CEO for the 1990's should combine the best of Arthur C. Clark with Adam Smith.

In the era of rapid technological change and fierce global competition, I believe the United States must move aggressively to harness our lead in satellite communications technologies to offer a "communicopia" of high-quality, low-price, telecommunications choices to consumers worldwide, while creating jobs for Americans here at home. Only by ensuring a competitive global marketplace can we hope to see continued U.S. leadership in these cutting-edge technologies.

This subcommittee has worked together this year to develop comprehensive legislation to overhaul the Communications Act of 1934 for the Information Age. The legislation we passed through the House in bipartisan fashion will create competition in a number of telecommunications markets which today are bastions of monopoly control. I remain optimistic we will see this sweeping reform of communications laws signed this year.

The satellite segment of our telecommunications infrastructure today, however, also operates under an anachronistic legal and regulatory umbrella and is in need of reform. We must remain true to the three principles of the 1934 Communications Act: Diversity, Localism, and Universal Service.

There is no question that the universal provision of communications around the globe is well-suited for satellite technology. Localism is fostered throughout the world with satellites because many of the ambitious proposals create orbiting links that would substitute in other countries for the high-quality, two-wire infrastructure we enjoy in the United States. Satellites can help bring local communities together even as it binds the world together. And the last principle, diversity, is one which I feel is interwoven with the issue of fostering competition.

With this in mind, it is clear our laws governing satellites need review. It doesn't take a rocket scientist to figure out that the Satellite Act, INTELSAT, and INMARSAT no longer make sense in today's world. For me the question isn't whether INTELSAT and INMARSAT should be privatized, but rather when and how.

In addition, I believe we stand today with a critical launch window in which we can convert the technologies developed during a Cold War rivalry and market them as civilian, commercial satellite services. We should not sit on our lead and let other countries catch up.

The United States must adopt a policy which facilitates licensing of satellite services and technologies, encourages investment in satellite technology, and that fosters competition in the marketplace.

Only then can we say that we have kept faith with President Kennedy's vision of a world brought closer together using the best of American technology in outer space for the benefit of mankind.

That completes the opening statement of the Chair. Now, I will turn and recognize the ranking minority member.

The gentleman from Texas, Mr. Fields.

Mr. FIELDS. Thank you, Mr. Chairman.

I want to congratulate you on calling this important and timely hearing. Just as Congress is working with the administration to build a domestic information superhighway, I believe that you and I should work together, just as we did earlier this year on our telecommunication legislation, to create the global information infrastructure that Vice President Gore announced at a recent telecommunications conference in Buenos Aires. The question for us today is basically this: who should build and how should they build the global information infrastructure?

In order to create a global telecommunications system as quickly and efficiently as possible, we participated in the creation of INTELSAT many years ago. INTELSAT has created and performed well and as intended. But the time is here to move on. Just as we have observed in our domestic telecommunications marketplace, a competitive model is vastly superior to the monopoly model.

I recognize that the task before us is not inconsiderable; creating a truly competitive global market for satellite service will not happen overnight. But as we recognize in our own infrastructure initiative, before you can have real competition, the ground rules need to be in place to encourage competitors to make the necessary investments. So we should begin to work on considering what those rules should be.

Today, we also want to examine some of the issues surrounding next year's World Administrative Radio Conference. The subcommittee should gain valuable insight today concerning the interagency and public-private coordination and participation in the WRC's. My goal is to learn how the Congress can facilitate this.

Today, we have two excellent panels of witnesses to begin the discussion. I want to welcome the three government witnesses who have just returned from successfully negotiating the memorandum of understanding at bilateral negotiations with the Russians, and I want to welcome our private sector witnesses.

Again, Mr. Chairman, I thank you and applaud you for calling this hearing today.

Mr. MARKEY. I thank the gentleman.

The gentleman's time has expired.

Let's begin first by getting a glimpse of some of the promise of satellite technology. Motorola has a very brief tape which I thought might make some sense to run for a couple of minutes so that we could get a sense of what the future could look like, and then we will move to our first panel, if the staff could please—well, let's go to the Chairman of the Federal Communications Commission and maybe the staff can try to figure out how to make that work for us during the interim.

We will turn then to Reed Hundt, the Chairman of the Federal Communications Commission.

We welcome you back. We know that you were over at the auction counting money for the past several days. And we very much appreciate your efforts in that area and look forward to your testimony here as well.

STATEMENT OF HON. REED E. HUNDT, CHAIRMAN, FEDERAL COMMUNICATIONS COMMISSION; LARRY IRVING, ASSISTANT SECRETARY FOR COMMUNICATIONS AND INFORMATION, DEPARTMENT OF COMMERCE; AND VONYA McCANN, COODINATOR, INTERNATIONAL COMMUNICATIONS AND INFORMATION POLICY, DEPARTMENT OF STATE

Mr. HUNDT. Thank you for inviting me, Mr. Chairman.

Mr. Chairman, I would like to congratulate the subcommittee on calling this very, very important hearing.

Not for the first time, Mr. Chairman, you and Congressman Fields and Congressman Oxley, and all of your colleagues, are showing leadership in Congress, and for the country, bipartisan leadership on matters of great importance to our economy. I think you are so right, Mr. Chairman, to extend your vision upwards to the skies and outwards to the global economy.

You are also right to perceive that the United States, with its satellite industry, has the opportunity to greatly stimulate not only our domestic economy but the global economy, provided that governments can reach the kinds of accords, both internally and internationally, that will permit the dissemination of the wonderful inventions of humans to all people in the world.

Last week, when Assistant Secretary Irving and Deputy Assistant Secretary McCann and I were in Russia with the honor of negotiating with our Russian counterparts on behalf of the United States, it happened to be, as you know, the 25th Anniversary of the flight to the moon, the great step for mankind. And as we said to our Russian friends, it is very important to realize that trip was the result of a decade-long, peaceful competition between our two great countries.

That vision of competition and achievement is one that I think is an appropriate metaphor for our satellite industry which is competitive, desires to be competitive and can, through its competition, lead to great achievements for, as Neil Armstrong said, all mankind.

At the same time that President Kennedy called for the effort to reach the moon, he also called for a space program that would include a vision of satellites orbiting the earth that would enable people all over the world to communicate. And that vision of the 1960's and of many other decades really can come true before this century is out.

Satellites can transmit voice, data, and video services. They can offer numerous different services to all the world economy: global positioning services, educational applications, medical applications. It is very, very important that our industry, and that all the world's industries that are related to satellites, have a chance to flourish and that governments agree on giving them their chance for the benefit of all the citizens of the world.

I would like to, if I can, just tell you two stories that have been part of my experience in the last several months to illuminate some of the benefits. In Buenos Aires where this same delegation, behind Vice President Gore, did announce the principles of a Global Information Initiative, as you mentioned, Mr. Chairman, I had the occasion to meet with one of my counterparts from an African country, a very, very underdeveloped country and a poor country. He said:

"Our goal in communications is this. We would like to have the ability for every village to be able to make a telephone call. We want just one way to make a connection from every village."

I said: Why? He looked at me and said: "Because we have mothers holding children who are dying in their arms and, but for a telephone call, they have no way to get medical advice. They just need to make that one call to where we happen to have a doctor, because we can't afford doctors in every village. They need that way to connect to save their children." Well, this is an all too true story and really doesn't require any further elaboration.

But what we are here today to talk about is how that one call, that one lifesaving call, could well be accomplished through satellite technology. You will hear today from people in the private sector far more knowledgeable on this subject than I am about how cheap it is to provide that one call to all the remote and impoverished areas of the country through satellite technology, and how many lives could be saved that way.

But satellites are not only for underdeveloped countries. In Russia last week, we met with a group of students who were in the process of learning about space technology in conjunction with a group of students in Providence, Rhode Island. One of the Russian reporters, a 15-year-old from a kid's TV network, asked: "Why do we want children in Russia to be able to communicate in an educational atmosphere with children in Rhode Island?" Somebody in our group answered: "For one thing, they could learn a lot better Russian from somebody in Moscow than they might in many places in our country." And the reporter said: "Well, now I get it."

This is a humble example but one of literally thousands and thousands of examples of how societies can connect and how starting with kids, but certainly including businesses, these connections will lead to greater bonds, greater business opportunities, greater opportunities for democracy. And again I know you will hear today and you will ask today a number of probing questions that will make a record of just how these opportunities can be achieved through satellite technology.

At the Federal Communications Commission, we are very proud to do our part in advancing these economic and business opportunities. Most importantly, I would like to emphasize the pleasure and we think success that the government has had in a coordinated effort involving the FCC, the Department of State and the Department of Commerce.

On a personal level, we meet and confer and travel with each other often. We have a number of ways of making sure that we interact smoothly so as to have a coordinated policy. And at the executive branch level, with the leadership that we have in the White House, especially including the Vice President, I think we can justly say that we have in our government today a coordinated method of making and implementing policy.

It is very, very important to us that we have, as part of this, good guidance from Congress. We have gotten it and we are going to continue to get it. That is another reason I would like to compliment you on holding this particular hearing and doing all that you will do in the future along these lines.

Our governmental coordination has concerned the future structure of INTELSAT and INMARSAT. It has concerned our framing of positions in many bilateral discussions, such as the one we had with our Russian counterparts last week that led to the memorandum of understanding, pursuant to which we have crafted a very far ambitious work plan that will make concrete the principles of the Buenos Aires discussion. And in that MOU, our Russian counterparts have stipulated to those principles again and in more concrete fashion, which is a very significant accomplishment for our country.

In our coordinated efforts, we have pursued a policy of competition. And, Mr. Chairman, I understand from your remarks that that is one with which you are sympathetic. I think everyone should recognize that the U.S. Government and all of its branches are unified on this topic. It is going to be very important for us at the FCC and in government generally to continue this close coordination as we prepare for the WRC-95 meeting.

We, at the FCC, have also an intent to reach out to and receive input from the private sector. We have appointed an advisory committee chaired by Gary Epstein, former Chief of the Common Carrier Bureau. That advisory committee includes a broad range of participants from the private sector.

We will be looking to your committee, Mr. Chairman, and other appropriate people in Congress, to also provide us such views as you may develop over time so that the very, very important World Radio Conference in the fall of 1995 is a successful one, because I am sure you will hear today how critical that appears to be in the time line of developing the various business prospects that satellites can offer to us.

So on that note, let me conclude and thank you again for holding this hearing.

Mr. MARKEY. Thank you very much.

[Testimony resumes on p. 35.]

[The prepared statement of Mr. Hundt follows:]

TESTIMONY OF REED E. HUNDT, CHAIRMAN,
FEDERAL COMMUNICATIONS COMMISSION
BEFORE THE HOUSE SUBCOMMITTEE ON TELECOMMUNICATIONS
ON THE GLOBAL INFORMATION INFRASTRUCTURE
AND THE ROLE OF SATELLITES

July 28, 1994

I. Introduction

Mr. Chairman and Members of the Subcommittee. Good morning. I would like to thank the Subcommittee for the opportunity to appear this morning to testify on the important issue of the Global Information Infrastructure, and the role of communications satellites in building that infrastructure. Satellite technology offers opportunities to build global, seamless communications networks. In my tenure as Chairman of the FCC, I am committed to ensuring that satellites continue to be an important component of our overall policies that are designed to foster the development of both the National Information Infrastructure (NII) and the Global Information Infrastructure (GII). Mr. Chairman, my testimony will focus on the role of satellites in international telecommunications.

I particularly welcome the opportunity to speak to you at this time since last week we celebrated the 25th anniversary of humankind's landing on the moon. That flight and remarkable landing not only stretched our imaginations and the very boundaries of our world, but also helped spur the development of remarkable technologies which are used today in communication, computing, manufacturing and a variety of other areas. President Kennedy's dream of a space program that would take us to the moon also included a vision of satellites orbiting the earth to enable people all over the world to communicate. That dream has flourished in the communications satellite industry in which the U.S. plays a major role, domestically and internationally.

Since their introduction for commercial use in the 1960's, communication satellites have been crucial in bringing long-distance telephone service to people all over the world. That service is particularly critical in areas where the telecommunications infrastructure is not well developed. Even today, 70% of the world's telephone lines are concentrated in 24 countries of the OECD. While the United States has 54 main telephone lines for every 100 people, Sub-Saharan African countries average 0.43 telephone lines for every 100 people. Many countries, particularly in the developing world, would have a very limited long-distance network and would be virtually cut off from international telecommunications, were it not for satellites.

At the World Telecommunications Development Conference in March in Buenos Aires, Argentina, Vice-President Gore announced an initiative to foster the development of a Global Information Infrastructure. That network of networks would increase our ability to communicate around the globe. Guided by the principles of private investment, competition, open access to the network, appropriate and flexible regulation and universal service, we hope to foster the growth of a communications infrastructure that is truly global in its reach and diverse in its service. The information skyways are an important part of that vision. By linking Lagos to Los Angeles through satellite technology, more trade and cultural exchange is possible.

Numerous other uses of satellites have been developed. Business applications include global positioning services, which, for example, help identify trucks on their way to market and make transportation and distribution of goods more efficient. Satellites can also enable patients in rural areas to be diagnosed by doctors in the finest hospitals in the world without having either patient or doctor travel. Through educational applications, students in classrooms around the world learn together and can access distant libraries and other repositories of knowledge. Satellites also play a crucial role in environmental monitoring and search and rescue operations.

Offering a diverse array of services, the communications satellite industry has become an important engine for the U.S. economy. For example, cable television could never have become the $22 billion industry it is today in the United States without satellites' reliable and low cost delivery of programming. U.S. manufacturing of these systems will lead to a substantial investment in the U.S. economy, and create a significant number of high-paying jobs in the areas of research and development, production and administration. As the systems are implemented, additional job and business opportunities will be created, such as in mobile end user services, equipment, and the launch industry. Development of the communications satellite industry will also assist in the conversion of defense-based businesses into civilian-based ones.

In the U.S. alone, communications satellite services generated approximately $1.85 billion in revenues in 1993, 23 percent higher than in 1992. The production of both the space and ground components of satellite systems generated $2.7 billion in revenues for the U.S. commercial satellite industry in 1992. Half of the communications satellites manufactured in the U.S. that were delivered in 1993 were sold to foreign customers or international satellite organizations.

The communications services offered by the satellite industry will also spur economic growth in other areas. Immediate access to an advanced global communications infrastructure can increase the efficiency of existing businesses and create new ones; provide developing countries with a state-of-the-art communications system that can be used for governmental, educational, personal and commercial purposes; and contribute to the quality of life which will, in turn, promote sustainable economic development.

Satellites have certain comparative technological and economic advantages that make them particularly appropriate for many telecommunication applications, positioning them strategically to play an important role in the Global Information Infrastructure. First, unlike other communication technologies, satellites are equipped to provide point-to-multipoint telecommunications to large portions of the earth's surface. For example, one geo-synchronous satellite (a satellite whose rotation is the same as the earth's, so that it stays above a "fixed" point) can deliver service to as much as one-third of the earth's surface. Domestic satellites can be designed to cover large nations such as the United States or Russia, while regional satellites can serve a large landmass area, such as Western Europe or Africa. Second, the cost of satellite communication is the same regardless of distance, whether 100, 1,000 or 10,000 miles. The cost of constructing wire-based facilities, by contrast, increases as the length of the fiber or wire increases. Additionally, as satellite technology has improved, the costs of satellite communications services have declined.

Satellite services have traditionally provided voice (telephone service), data transmission, and video to users operating at fixed points, i.e., from one business office to another, or from a broadcaster to the home. Satellites can also serve fixed communication needs in remote areas or in other areas where a traditional telecommunications network does not yet exist. By setting up an earth station wherever needed, satellites can provide fixed communications through less investment in land-based infrastructure than would be possible through wireline services. This feature is particularly important in environmentally sensitive areas, such as wetlands, where laying wire may disturb the fragile ecosystem.

Satellites also play a pivotal role in mobile communications services, such as those serving the maritime, aeronautical and land mobile communities. Mobile satellites can provide world-wide coverage to and from people in transit, i.e. from a moving ship or to a business person traveling out of the country.

Fixed and mobile communications satellite services have traditionally been provided through International Satellite Organizations (ISOs), principally: the International Telecommunications Satellite Organization (INTELSAT) and the International Maritime Satellite Organization (Inmarsat). INTELSAT, a fixed satellite system that provides global telecommunications services, has more than twenty operational satellites, while Inmarsat, a mobile satellite system that provides maritime, land mobile and aeronautical satellite services, has four satellites operational.

The United States was instrumental in developing INTELSAT and Inmarsat. In 1962, President Kennedy asked for Congress' approval to create Comsat, a U.S. corporation, to facilitate development of a global communications satellite system and to provide for private investment by United States entities in such a system. From these beginnings grew the international satellite organizations, INTELSAT in 1964, to provide fixed satellite communications, and Inmarsat in 1978, to provide mobile satellite communications.

Comsat, by virtue of statute, is the privately-owned commercial entity that acts as the Signatory to the operating agreements of INTELSAT and Inmarsat. Signatories such as Comsat are involved in making the commercial decisions of these organizations and Parties (governments) are charged with making policy decisions. There are 133 member nations in INTELSAT and 73 member nations in Inmarsat. Comsat is the largest single investor in these organizations holding a 20% share in INTELSAT and a 22% share in Inmarsat.

The success of these organizations in providing global telecommunications for both fixed and mobile applications surpassed even Kennedy's vision. For several nations, particularly some developing countries, the INTELSAT and Inmarsat systems serve a majority of their telecommunications needs and may continue to do so, along with other satellite systems, well into the next century.

II. Principles Guiding FCC Satellite Regulation

The FCC has broad authority under the Communications Act in the international satellite arena. First, in coordination with the Departments of State and Commerce, we work internationally to obtain spectrum allocations in which U.S. service providers can operate. Second, domestically, the FCC allocates spectrum, licenses U.S. service providers, and regulates their domestic operation. Third, under the Communications Satellite Act, the FCC has authority (jointly with the Departments of State and Commerce) to instruct Comsat in the international satellite organizations, INTELSAT and Inmarsat, as well as to regulate Comsat domestically in its provision of INTELSAT and Inmarsat services.

In fashioning regulatory policies governing international communications satellites, the FCC believes that promoting competition in the satellite telecommunications industry both domestically and internationally is key to realizing the potential of the Global Information Infrastructure. We believe that our policy to provide choice, opportunity and fairness to consumers and incumbents will help ensure that the U.S. satellite industry will continue to be the most innovative and competitive in the world, and will offer consumers an expanding range of services at reasonable rates.

Choice means giving the public the benefit of competition - allowing consumers to select among competing service providers who use the same or different technologies. Choice will promote lower prices for consumers and growth in the U.S. economy. To that end, we are working domestically and internationally to promote competition and discourage monopolies in the satellite telecommunications service sector. This includes encouraging competition to incumbent satellite service providers such as INTELSAT and Inmarsat.

We also believe that as many telecommunications service providers as possible should have the opportunity to compete in the telecommunications marketplace. For the satellite industry, this means that competing service providers should be able to: have access to the spectrum on a timely basis; ensure that coordination among systems is complete prior to the planned date of service; and be subject to a rational regulatory framework.

The FCC also believes that competition to build the NII and GII must be fair, both within the satellite industry and between satellite service providers and other telecommunications industry players. Open access and interconnectivity for all service providers, such as between satellite service providers and personal communications or cellular service providers, are essential to fair competition. This will ensure that the satellite industry can deliver products and services that compete with terrestrial telecommunications systems in delivering voice, video and data. A competitive telecommunications marketplace will benefit consumers, the satellite industry and other sectors of the economy.

The FCC plans to pursue these goals, and the principles guiding the NII and GII, as we craft our rules governing the satellite industry, whether in regard to fixed satellite services, mobile satellite services, or the restructuring of INTELSAT and Inmarsat. While satellites have the ability to improve communications around the globe, in order for them to be most effective, a number of regulatory issues must be addressed in domestic, bilateral and multilateral fora. Constraints on spectrum availability and entry barriers other countries have erected to participation in their satellite markets are prime examples of the type of regulatory issues that require our attention. Our objective is to foster a competitive satellite industry and marketplace which will create incentives for lower prices, as well as fuel U.S. and international economic growth.

III. International Spectrum Allocation and Coordination

In practice, creating a competitive satellite industry requires resolution of very difficult international and domestic spectrum issues. Spectrum availability is determined by regulations that "allocate" specific bands to selected radio services, and by technical expertise that promotes the sharing and "coordination" of spectrum use between various systems within and outside of the United States. Sufficient spectrum needs to be allocated and coordinated, both domestically and internationally, to meet growing satellite needs.

First, there are technical constraints on spectrum availability. The radio spectrum is the critically important resource that is utilized to support satellite and other radio communications. The channel capacity (or speed of data transmissions) of operating systems is directly related to the amount of "bandwidth" available.[1] The U.S. is not only a large user of the radio spectrum, it is also a leader in developing and implementing more efficient uses of the available bandwidth. Nevertheless, increasing demand for faster and higher capacity systems has led us to become concerned about the amount of spectrum available to satisfy these needs.

Second, there are difficult issues in spectrum allocation among competing carriers from many different countries and international satellite organizations. On the international level, spectrum allocations are considered at World Radio Conferences (WRCs), sponsored by the International Telecommunications Union (ITU). The ITU's 180 member countries and many private sector members meet in biannual WRCs to discuss international spectrum allocation for telecommunications and associated concerns. To be successful at WRCs, the U.S. needs to define its goals early for future satellite services, and engage in bilateral negotiations on satellite issues prior to the WRCs.

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[1] Other technical factors such as signal compression techniques and directive antennas also contribute to capacity and opportunities for frequency re-use.

We are preparing for WRC-95 by working in close coordination with the Department of Commerce (NTIA) and the Department of State to develop consensus U.S. positions on satellite issues at an early date. As part of our coordination efforts, the Principals of the FCC, the Department of State and NTIA have monthly meetings to discuss international telecommunications issues affecting all three agencies, such as privatization of the international satellite organizations and spectrum coordination. I believe that this process has enabled the three agencies to formulate a unified position on the important international telecommunications issues of the day, and to develop coordinated plans for advocating their positions at international conferences. This process has been working smoothly. I have enjoyed participating in these meetings and have learned much from the exchange with my colleagues in the Departments of State and Commerce.

As part of the coordination and advisory process, the FCC has also initiated a public notice of inquiry proceeding that addresses all issues that will be considered at WRC-95. Initial public comments have been received and we expect a second round of responses in early August. Finally, we have established a WRC-95 Industry Advisory

Committee and appointed as Chair from private industry, Mr. Gary Epstein, former Chief of the FCC's Common Carrier Bureau. This advisory committee will develop private sector views on WRC-95 issues. The advisory committee and its informal working groups have held regular meetings since the committee's inception in May. In accordance with the WRC-95 agenda, a large part of its work will relate to mobile satellite service (MSS) matters. Specifically, WRC-95 will address constraints on the use of MSS allocations made at the World Administrative Radio Conference-92 (WARC-92), review the date on which previously adopted MSS allocations in the 2 GHz range will enter into force, discuss regulatory and allocation issues regarding feeder link spectrum[2] to support satellite services, and discuss the possibility of making additional worldwide MSS allocations.

The third major factor in promoting access to usable radio spectrum is to ensure a competitive opportunity for U.S.-based satellite service providers in international satellite spectrum coordination. The international coordination process requires the U.S. to publish notices of proposed satellite systems with the ITU, and to notify potentially affected foreign administrations of such proposals. The U.S. must then negotiate who will use what part of a given satellite spectrum allocation. As more foreign administrations, such as Russia, Mexico and Canada, announce plans to implement satellite systems, and as system configurations become more complex, the spectrum allocation and coordination processes become more demanding. This has required significant and increasing engineering resources over the last few years, and in the future our success will depend on having sufficient resources available to engage in effective satellite coordination. However, I am optimistic that, with continued inter-agency cooperation, active involvement of the private sector, and the support of the Congress in the reauthorization process, we will be able to meet these challenges and win favorable treatment for U.S. systems.

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[2] Feeder links are the transmissions between the satellite and the ground-based gateway that complete the communication between the mobile unit and the terrestrial network.

To achieve the goal of global communications available to anyone, anywhere, anytime, the U.S. and the world must use the spectrum more effectively. This involves active consideration of international telecommunications standards at the ITU to promote coexistence and interoperability of increasingly complex systems such as LEO systems and personal communication services. U.S. industry has been a key player in WRC technical standards groups which consider issues such as interoperability.

To make important and meaningful U.S. contributions to the ITU technical groups, the WRCs and the spectrum coordination process, the FCC will require more engineering resources, as detailed in our recent reauthorization proposal. We have been working closely with Congress in the reauthorization process for the FCC, and appreciate this committee's support. To serve the public and industry effectively, the FCC must train and commit additional engineers for the spectrum coordination and allocation processes. Developing and implementing complex standards also requires the time and talent of many of our best people. As an example of the resources required in this area, for PanAmSat to launch its satellite this past month, the FCC devoted the energies of several engineers logging many hours over a two and a half year period to facilitate the necessary coordination with INTELSAT and numerous foreign governments, including the Japanese and the Russians, as well as several satellite operators. This is just one of more than 35 geo-synchronous satellites currently in the coordination process, not to mention the many LEO satellite systems that will need to be coordinated shortly.

To facilitate growth in the satellite industry and improve our spectrum coordination and allocation work, we are considering as part of the FCC's reorganization proposal consolidation of all satellite activities into one International Bureau. This will better enable us to foster a more competitive domestic satellite industry that is responsive to consumer needs. It will also help us to deal effectively with the specialized issues associated with the international nature of satellite technology. As these proposals are finalized later this summer, we look forward to discussing them with members of Congress and, in particular, with this Committee.

IV. Competition in International Fixed Satellite Systems

The FCC's regulatory policies governing international fixed satellite systems also reflect the principles of choice, opportunity and fairness. Traditionally, international fixed satellite services in the United States have been provided by INTELSAT through Comsat. The INTELSAT system has grown dramatically since its founding, but faces increasing competition from separate satellite systems that seek a share of the international market, as well as fiber optic cable and other new technologies.

In the 1980s and the 1990s, in order to create direct facilities-based competition to INTELSAT, the U.S. licensed three separate fixed satellite system providers, PanAmSat, Orion and Columbia. PanAmSat, a U.S. company, began offering in 1988 innovative services to South America, a previously underserved region. As demand for its services has increased, PanAmSat has digitized its services, such as satellite news gathering, to make more efficient use of its satellite capacity. PanAmSat's success has led it to launch its second satellite just this month. It has also planned two more satellites which will be launched over the next year or two.

Other separate system providers are also successful. Columbia has been operational since 1992 offering a variety services through transponders leased from NASA. Additionally, Orion is planning to launch its first satellite this Fall which will be aimed at the video, satellite news gathering and multimedia distribution markets. We expect, as demonstrated by the PanAmSat example, that separate satellite systems will increase in both size and number in the near future.

V. Competition in International Mobile Satellite Systems

Following the World Administrative Radio Conference in 1992 (WARC-92), which allocated frequencies for MSS, the FCC has taken several actions to make mobile services more widely available. Mobile satellite services have been able to expand beyond their traditional safety and distress role largely due to the decrease in cost of advanced signal processing technology for mobile terminals. In fact, mobile satellite communications has the potential to be a billion dollar plus industry. The FCC hopes that our regulatory regime will help the U.S. retain its lead in this area, and foster innovative services to the American public to meet their mobile satellite communication needs.

Low earth orbit satellite (LEO) systems are an important new satellite-based technology for mobile communications. The FCC currently has pending before it three applications to operate LEOs on frequencies below 1 GHz. Those "Little LEOs" would be capable of providing certain data services within the U.S. and around the world, including tracking and position determination, data transmission, and emergency services.

There are five applications pending to operate low earth orbiting systems above 1 Ghz. Those "Big LEOs" would be capable of providing a wide range of voice and data services, including cellular-like telephone services and data transmission for applications such as satellite-based news gathering, position location, search and rescue, disaster management, environmental monitoring, paging, facsimile, cargo tracking, industrial monitoring and control services.

The proposed LEO systems offer the potential for significant economic and social advances and for service to developing countries by providing an instant telecommunications infrastructure at minimum costs. We believe that the introduction of new services, such as those to be provided by the LEOs, will promote competition in the satellite service marketplace and stimulate economic growth in the U.S. and abroad. LEO technology and services will also enhance productivity and economic growth in other sectors, such as the launch industry and the satellite manufacturing industry.

Recently, the FCC has taken the following actions in regard to LEOs:

a) we were instrumental in obtaining spectrum allocations for LEOs at WARC-92, working in coordination with the Departments of State, Commerce and private industry;

b) we provided domestic spectrum allocations for both Big and Little LEOs;

c) we conducted two negotiated rulemakings, one for Little LEOs and one for Big LEOS; and

d) we adopted regulations for licensing and operation of Little LEO systems, and proposed regulations for licensing and operation of Big LEO systems.

The FCC still has to issue licenses for the Little LEOs, draft rules governing Big LEO licensing and operation, issue licenses for Big LEOs, and coordinate all the LEO systems internationally.

The primary focus of the FCC's proceedings on LEOs is to ensure that the benefits of LEO technology are available to U.S. consumers as soon as possible and in a competitive manner. The three Little LEO applicants should all be able to operate technically within the planned spectrum, with room for additional entrants. Our proposed spectrum sharing plan would permit authorization of up to five Big LEOs.

Big LEOs, high frequency (HF) radio and other such services are expected to compete with Inmarsat's mobile communications services. Through Comsat, the U.S. has been a major participant in the Inmarsat organization and a major user of Inmarsat's services. In response to this increasingly competitive environment, Inmarsat is, among other things, considering restructuring and is planning for a subsidiary to offer a hand-held mobile satellite service, Inmarsat-P.

Mr. Chairman, the MSS arena has been, and continues to be dynamic. We believe that the new mobile satellite technologies and services that the FCC is encouraging will produce a multitude of consumer benefits, such as declining prices and an expanded telecommunications network. In addition, we believe that a more competitive MSS environment will lead to more choices for consumers.

VI. Restructuring of the International Satellite Organizations, INTELSAT and Inmarsat

As mentioned previously, the international satellite organizations (ISOs) INTELSAT and Inmarsat play an important role in providing efficient and cost-effective communications to the world community. However, last year, Comsat expressed its view that the ISOs' present treaty-based structures may hamper them in responding to competitive pressures. Comsat called for privatization of the ISOs in the form of corporations with publicly traded shares. Comsat has also stated its belief that, despite this preference, some form of continued intergovernmental involvement may be necessary politically in order to achieve long term restructuring of the ISOs.

Both INTELSAT and Inmarsat have recently started down the path of change in order to compete more effectively with, for example, separate satellite systems and planned Big LEO systems. For example, Article 14(d) of the INTELSAT Convention, which governs the determination of whether separate satellite systems will cause significant economic harm to the INTELSAT system, has been liberalized. The economic harm test has been eliminated for all separate satellite systems not interconnected with the public switched telephone network, and for separate satellite systems interconnected with the public switched network, for up to 1,250 circuits. We expect that this Fall INTELSAT will change its economic harm determination so that only separate satellite systems providing over 8,000 interconnected public switched network circuits will require an economic harm determination under Article 14(d). Additionally, INTELSAT management and the INTELSAT Board of Governors recently have taken steps to streamline the INTELSAT decision-making process. INTELSAT formed a Working Group to address the issue of whether INTELSAT should be restructured and if so, in what form. The U.S., through the FCC and the Department of State and the Department of Commerce, has participated in this group on a regular basis.

There has also recently been significant activity with respect to Inmarsat. Article 8 of the Inmarsat Agreement which governs the determination of economic harm to the Inmarsat system (and is the Inmarsat equivalent to the INTELSAT Article 14(d)) was liberalized in 1993 to allow automatic approval of all economic harm consultations by separate systems for Inmarsat for a period of approximately two years. Additionally, over the past several months, Inmarsat management and the Inmarsat Council have taken steps to streamline their decision-making processes. To grapple with privatization, Inmarsat has also established a working group in which the U.S., through the FCC, the Departments of State and Commerce, and Comsat, actively participates.

As required by statute, the FCC, the Department of Commerce and the Department of State all participate in the instructional process to Comsat in Inmarsat and INTELSAT. This process allows these agencies to advise and instruct Comsat on actions it should or should not take in these international satellite organizations and includes regular meetings between U.S. government staff and Comsat.

To formulate a U.S. government position on the privatization and future structure of INTELSAT and Inmarsat, the Department of State, the Department of Commerce and the FCC have formed a fourteen agency task force. As the task force completes its ongoing work, a recommendation on privatization and restructuring will be issued later this year. On July 14, the Department of State hosted a public hearing concerning the potential restructuring of the ISOs. While there was no consensus among the participants on privatization and restructuring, or the timing of such changes, the views expressed will be an important consideration for the inter-agency task force as it formulates its own views.

I believe that any restructuring of INTELSAT and Inmarsat should rely on the GII principles and promote effective competition; promote operational efficiency to respond to an emerging competitive market; encourage the ISOs to meet consumer needs with reasonable rates; promote universal service; ensure open and nondiscriminatory ownership of the ISOs; provide maritime safety and distress services; satisfy national security requirements; and ensure the peaceful use of outer space. We believe that reliance on these goals will assist the United States in fostering a competitive domestic and international satellite services industry, without allowing any unfair advantages to flow to any particular entity. These goals will also benefit developing nations by ensuring that satellite services remain available to them.

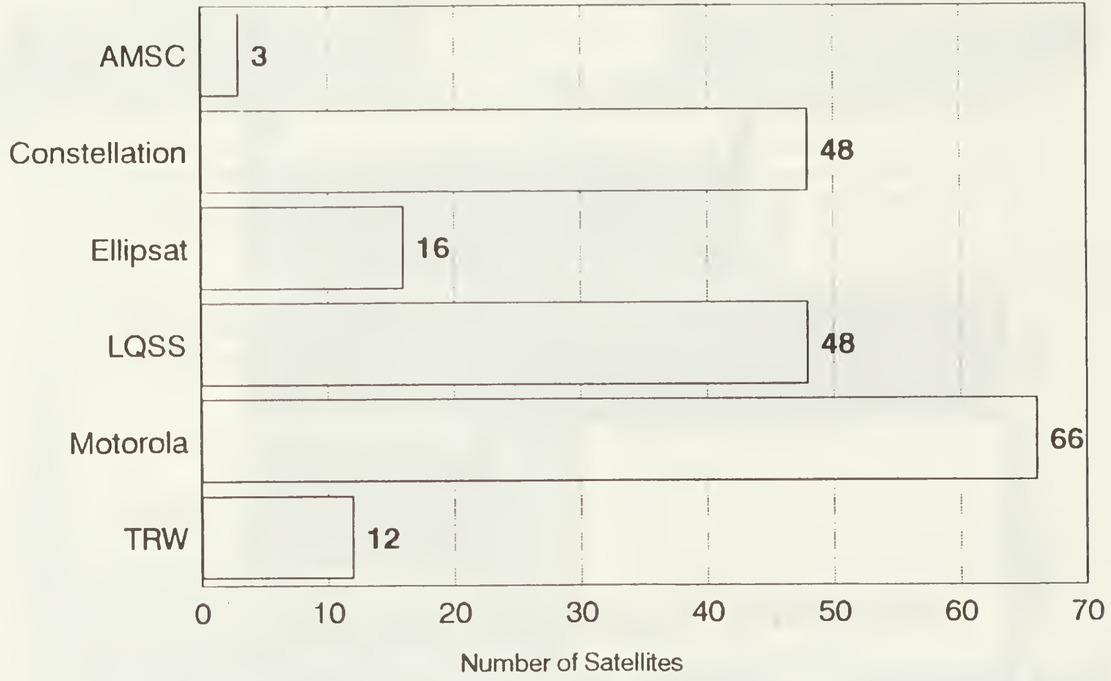
The U.S. government has been considering several models that a privatized INTELSAT or Inmarsat could take. These range from divestiture of the organizations, similar to the approach taken with AT&T in the 1980s, to creating corporate entities with publicly traded shares, to retaining some form of intergovernmental involvement in the privatized entities. However, the FCC believes that whatever structure is ultimately developed for the ISOs, there will be a need for a transitional phase if any major restructuring occurs. There are several possible options during the transition period. The United States could, for example, permit competitive and/or direct access to the INTELSAT or Inmarsat space segment by entities other than Comsat. However, no decision has been made regarding these transitional or final structure issues.

If the ISOs are restructured and privatized: a) Comsat's special status as a statutory monopoly for INTELSAT and Inmarsat service will likely need to be revisited (which would require amendments to the Communications Act); b) a restructured INTELSAT or Inmarsat should permit ownership by U.S. companies other than Comsat; c) Comsat should be entitled to the full value of its investment in the restructured organizations under any scenario; and d) direct access in the United States to the space segment should be permitted, allowing U.S. carriers and users to go directly to INTELSAT and Inmarsat to obtain satellite services. Taking these steps, I believe, Mr. Chairman, will help to ensure a competitive satellite marketplace domestically and internationally and will foster incentives for lower rates to U.S. consumers.

VIII. Conclusion

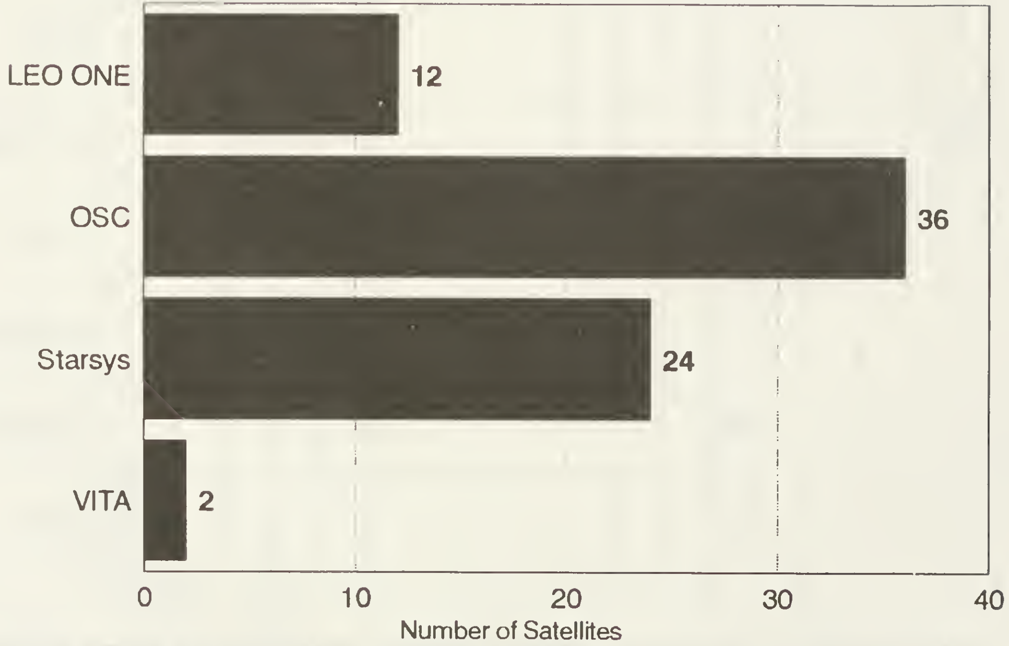
Mr. Chairman, Arthur C. Clarke, the man who first proposed the concept of the geostationary orbit satellite, said, "I believe that communication satellites can unite mankind." Satellites are a critical part of the information highways that, in the words of Vice-President Gore, "will allow us to share information, to connect, and to communicate as a global community. From these connections we will derive robust and sustainable economic progress, strong democracies, better solutions to global and local environmental challenges, improved healthcare, and - ultimately - a greater sense of shared stewardship of our small planet." I believe that these connections will be fostered through a competitive and innovative satellite telecommunications industry, with the U.S. continuing to play a leading role.

Planned Mobile Satellite Voice Systems

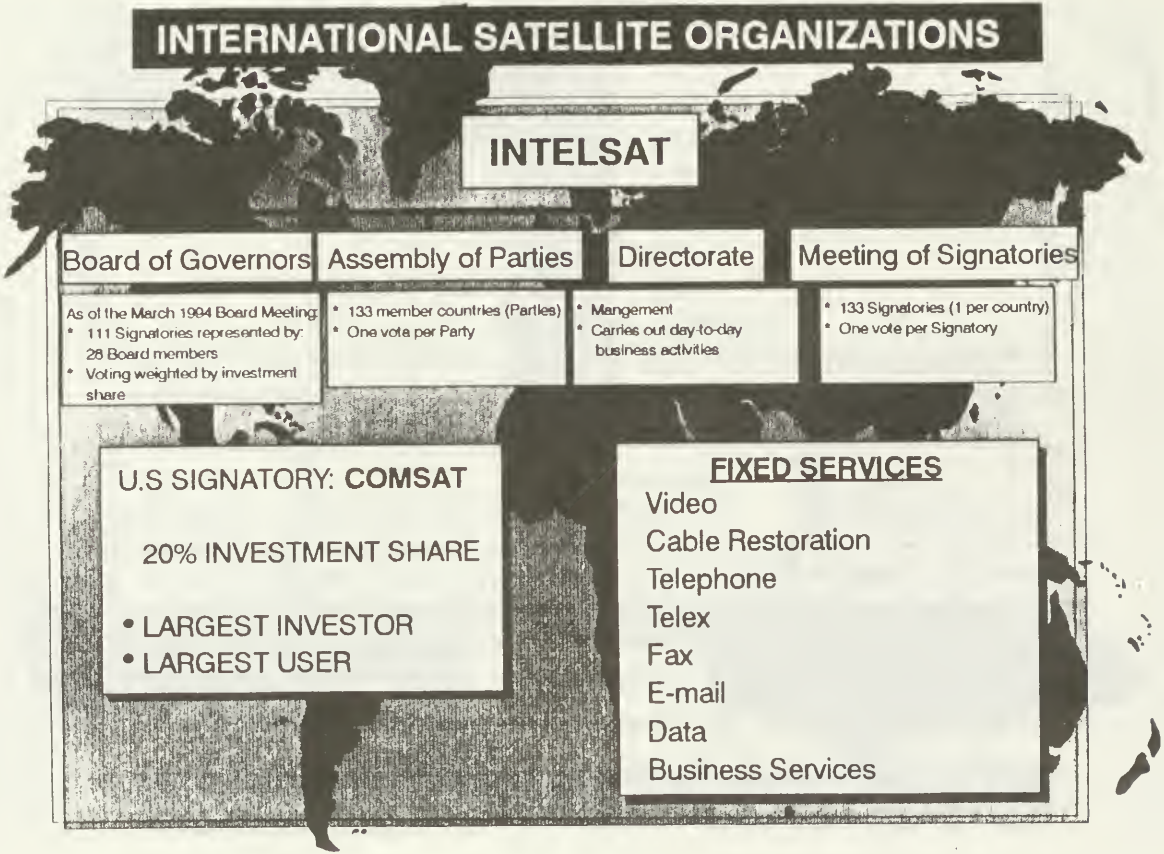


Source: 15th AIAA International Communications Satellite Systems Conference

Planned "Little" Low Earth Orbit Data Mobile Satellite Systems



Source: 15th AIAA International Communications Satellite Systems Conference



INTERNATIONAL SATELLITE ORGANIZATIONS

INTELSAT

Board of Governors

As of the March 1994 Board Meeting:
- 111 Signatories represented by: 28 Board members
- Voting weighted by investment share

Assembly of Parties

- 133 member countries (Parties)
- One vote per Party

Directorate

- Mangement
- Carries out day-to-day business activities

Meeting of Signatories

- 133 Signatories (1 per country)
- One vote per Signatory

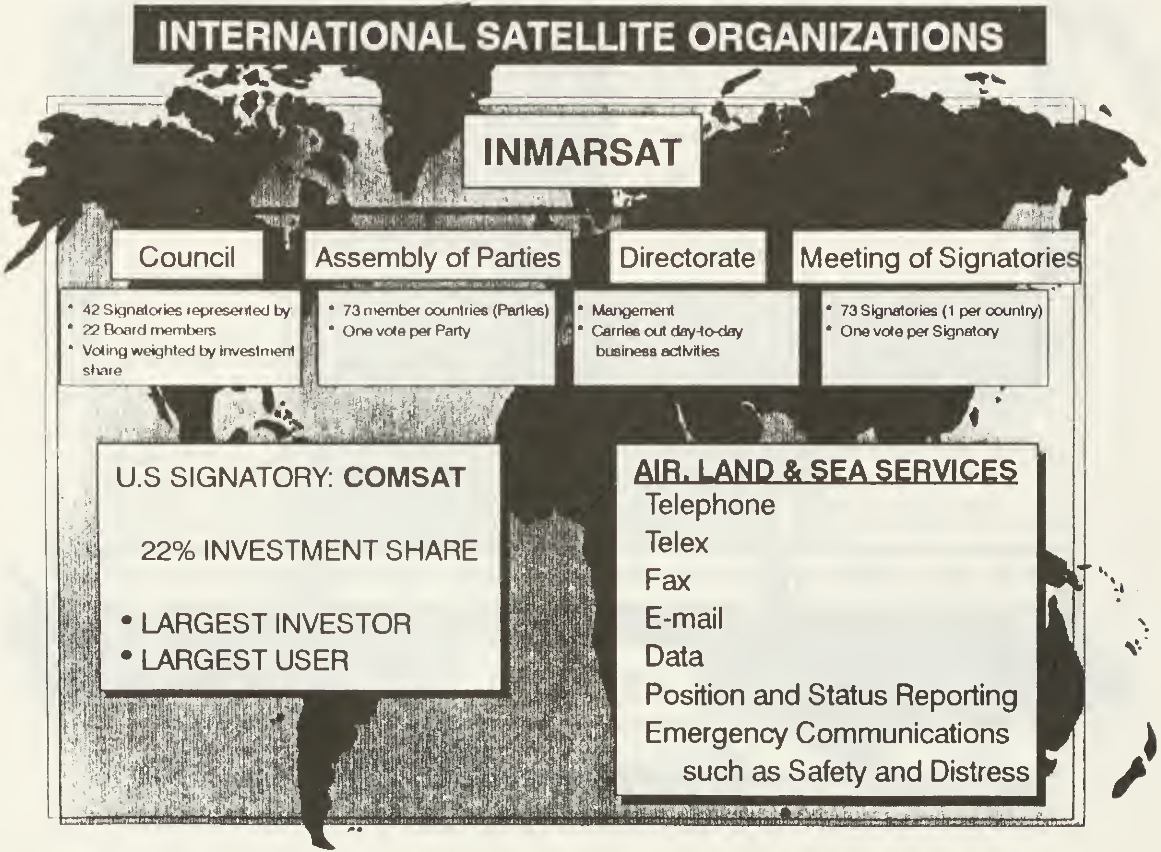
U.S SIGNATORY: **COMSAT**

20% INVESTMENT SHARE

- LARGEST INVESTOR
- LARGEST USER

FIXED SERVICES

Video
Cable Restoration
Telephone
Telex
Fax
E-mail
Data
Business Services



INTERNATIONAL SATELLITE ORGANIZATIONS

INMARSAT

Council

- 42 Signatories represented by:
- 22 Board members
- Voting weighted by investment share

Assembly of Parties

- 73 member countries (Parties)
- One vote per Party

Directorate

- Mangement
- Carries out day-to-day business activities

Meeting of Signatories

- 73 Signatories (1 per country)
- One vote per Signatory

U.S SIGNATORY: **COMSAT**

22% INVESTMENT SHARE

- LARGEST INVESTOR
- LARGEST USER

AIR, LAND & SEA SERVICES

Telephone
Telex
Fax
E-mail
Data
Position and Status Reporting
Emergency Communications
such as Safety and Distress

Mr. MARKEY. Next, we will hear from the Honorable Larry Irving, the Assistant Secretary for Communications and Information from the Department of Commerce.

We welcome you back.

STATEMENT OF LARRY IRVING

Mr. IRVING. Thank you, Mr. Chairman.

It is a pleasure for me to be here to address the subcommittee concerning the GII and international communications satellite policy.

As Chairman Hundt noted, last week was the 25th Anniversary of the Apollo XI Moon Landing, and while it is important to note that NASA assured the success of the moon landing, it was INTELSAT and COMSAT that insured that people around the world could share in that experience by transmitting live broadcasts of man's first steps on the moon.

Since that historic mission, revolutionary changes have occurred in telecommunications that allow for the establishment of a global information infrastructure or GII. Early this year, Vice President Gore in Buenos Aires endorsed the following five principles for GII: Private investment, competition, open access to networks, universal service and a flexible regulatory framework.

And since that speech, the administration has been besieged with calls from all over the world from people who want to learn more about the GII. In the years ahead, this global enthusiasm, coupled with technological advancements, will change the way we communicate with each other, improve the way we work, facilitate learning, and revolutionize the way medicine is practiced.

A wide range of technologies will be required to accomplish this goal but satellites will play a key role. I was not going to mention this, but seeing Congressman Oxley, I should note that the day of the Vice President's speech in Buenos Aires I happened to be down in South America and I adjourned to my room. Satellite technology created a miracle. I turned on my television and there was Northwestern playing Xavier.

Now, I don't know what was more amazing, Northwestern being in a postseason tournament, or the fact that it was telecast by satellite down in Buenos Aires. But there are limits to our satellite technology; Northwestern lost in overtime as usual. But it was amazing to see my Alma Mater live in Buenos Aires playing in a postseason basketball tournament.

Improvements in satellite, computer and network technologies have helped to extend better quality services to more people at lower costs. Indeed, technological innovation have enabled international satellite organizations to achieve public service obligations even in an increasingly competitive world.

INTELSAT has brought telephone service to millions of people around the world and thousands of people owe their lives to INMARSAT's disaster communications system. While we have accomplished a lot, we have a lot more to do. One half of the world's population has never used a telephone. Half of the world's population lives 2 or more hours from the nearest telephone. Satellites can and will help close that gap.

However, the continued success of ISO's such as INTELSAT and INMARSAT depends in large part on whether we adapt to new technology and to new competitive challenges. Unfortunately, both organizations are currently encumbered by awkward governance and management structures ill-suited for this environment. Obviously, change is needed.

Mr. Chairman, you asked the question, when and how? We would add what kind of change as well? The administration is addressing these matters now and we expect to have specific answers shortly.

We recognize the United States cannot dictate the outcome of these questions alone. The momentum of INMARSAT and INTELSAT appears to be toward privatization, but neither organization has fully defined what privatization means.

Proposals for reform will probably correspond to a narrowing of options from total privatization to maintaining the status quo. Total privatization would eliminate the role of governmental oversight and would likely involve the participation of a private corporation or series of corporations with publicly traded stock.

Under the scenario of total privatization, ISO's will forego tax and antitrust exemptions and relinquish their privileges and immunities. In a competitive marketplace, privatized organizations would shift their focus to profitability, new services, and development of new technologies.

Other alternatives being considered would modify existing organizations or preserve the status quo. Proposals to modify the organizations generally attempt to describe a more commercially oriented management and government process while leaving current intergovernmental structures in place.

This administration believes that public service obligations both currently being fulfilled by INTELSAT and INMARSAT should not be discarded with the adoption of any reform proposal. Public service obligations have included global interconnectivity at nondiscriminatory prices for INTELSAT. INMARSAT's obligation has ensured maritime safety of life obligations.

Both ISO's have proposed to continue these obligations even if and when restructured. If proper care is taken, we believe ISO's will be better able to serve the world community due to improved technology and more flexible structures without using their intergovernmental status as a barrier to other service providers.

The Clinton administration also strongly believes that privileges and immunities accorded INTELSAT and INMARSAT as part of their treaty status should not be used for competitive advantage. While the ISO's believe these privileges are of little commercial value, they do certainly confer a status unavailable to their competitors.

The administration is working to coordinate and develop appropriate U.S. Government policy regarding satellite issues. We want to promote competition and ensure equal status for all satellite providers and maintain public service obligations and enhance the GII.

My colleague at the State Department, Ambassador-designee, Vonya McCann, who chairs the interagency committee on this subject, held a public meeting early this month. Further meetings will be held this fall. Secretary Brown and the Department of Commerce are sponsoring GII meetings this week. They will resume this afternoon after the conclusion of this hearing. Many of the issues being discussed here today are being explored in those proceedings as well.

In a somewhat related matter, we know there is concern about WRC. And NTIA is helping to develop draft U.S. proposals for the 1995 International Telecommunications Union World Radio Conference, WRC-95, the results of which will have a direct impact on the U.S. satellite industry.

NTIA, for a number of years, has promoted development of mobile satellite services at ITU proceedings and meetings including WRC-92 and WRC-93. NTIA is developing proposals for future WRC's and will coordinate its efforts with the FCC and the State Department.

Mr. Chairman, just as this subcommittee under your leadership shepherded new legislation through the House of Representatives to introduce more competition into our domestic telecommunications marketplace, the Clinton-Gore administration aspires to develop policies that will increase competition in international satellite telecommunications.

Despite what we hear most about, which is corporate struggles, we believe that our goal has to be to keep the focus of our deliberations in the administration on what is best for the end user, American users surely, but users around the globe as well. We believe that we can and we will develop the correct answers to these difficult issues only if we put the needs of American and global world users first.

Thank you, Mr. Chairman.

Mr. MARKEY. Thank you very much.

[Testimony resumes on p. 48.]

[The prepared statement of Mr. Irving follows:]

TESTIMONY OF

LARRY IRVING

ASSISTANT SECRETARY FOR COMMUNICATIONS AND INFORMATION

U.S. DEPARTMENT OF COMMERCE

Good morning, Mr. Chairman, it is a pleasure to have this opportunity to address your Committee's hearings on international satellite communications policy. These sessions are particularly timely and useful as we enter an era of unprecedented change and promise.

As we celebrate the 25th anniversary of the Apollo 11 moonlanding, we are reminded that Intelsat and Comsat made possible the first truly worldwide television event by transmitting live broadcasts of humankind's first steps on the moon. Since that historic mission, revolutionary changes have occurred in telecommunications to allow for the establishment of a Global Information Infrastructure or GII.

Earlier this year in Buenos Aires, Argentina, Vice President Gore captured the attention of the world's telecommunications community with a straightforward statement of our goals and principles to encourage development of the GII. The Vice President endorsed five principles as the foundation for a GII: private investment, competition, open access to networks, universal service, and a flexible regulatory framework. Since the Vice President's speech, the Administration has been besieged with calls from every corner of the world from national governments and telephone operating companies to individual businesspeople and private citizens. All seek to learn more about the GII and how they can participate in its future deployment.

In the years ahead, it is this enthusiasm, coupled with technologies that could not have been dreamed of 30 years ago, that will change the way we communicate with each other, improve the way we work, facilitate learning, and revolutionize the way medicine is practiced around the world. A wide range of technologies will be required to accomplish this goal, and we anticipate that satellites will play a crucial role in creating a truly global information infrastructure.

Last week the single most observed astronomical event in history occurred -- the cataclysmic collision between the Shoemaker-Levy 9 comet and the planet Jupiter 500 million miles away from earth. Millions of earthbound explorers, were able to experience first-hand the images of Jupiter as they were relayed around the world on the Internet. People in some countries around the world were able to receive these images only through satellite telephone links.

Due to accelerating improvements in satellite, computer, and networking technologies, users have benefitted from an expanded range of services at lower costs and higher quality. Indeed, these technological innovations have enabled international satellite organizations to achieve their public service objectives even in an increasingly competitive market environment. Mobile satellite services have pushed forward the global information infrastructure to places previously cut off from the outside world. Today, thousands of people owe their lives to the disaster communications provided by systems such as Inmarsat.

Still, the facts are that one-half the world's population has never used a telephone and that half the world's population lives two or more hours from the nearest telephone. Much has been accomplished but much remains to be done.

The continued successful operation of Intelsat and Inmarsat relies upon realistic evaluations of how their organizational structures will enable them to effectively operate in radically transformed market and technology environments. Both Intelsat and Inmarsat are encumbered by an awkward and gradualist governance and management structure ill-suited for a competitive telecommunications market. Changes in these organizations are needed. Indeed, Intelsat and Inmarsat -- our vehicles for radical change yesterday -- are themselves considering change. Change is not only inevitable, it is essential and desirable. The questions are: What change? When and how? These are questions that the Administration is addressing now, and we expect to have specific answers shortly.

Today, many other nations are encouraging competition in their telecommunications markets. Many countries have commenced wide ranging domestic reforms while others are considering their options before initiating their own privatization and regulatory reforms. This makes the formulation and implementation of international policy a far cry from the PTT (Postal Telegraph and Telephone Ministry) dominated era of only a few years ago. In fact, over 60% of Intelsat's ownership is now privatized. This means that the relationship between governments, signatories, and the satellite organizations also will change.

Although the momentum of Inmarsat and Intelsat appears to be towards privatization, neither organization has, as yet, fully defined privatization within the context of their decision-making structures. As these satellite organizations make these determinations, we will be defining what the appropriate role for governments will be. We anticipate that proposals for the reform of these international satellite organizations will probably correspond to the following options: total privatization, partial privatization, and status quo.

The first option, total privatization, would mean these organizations would eliminate the role of mandatory government oversight. They would no longer function as intergovernmental organizations and, therefore, would be ineligible for privileges and immunities. A totally privatized organization's primary operational focus would be the maximization of profits in a competitive worldwide marketplace. Proposals in this category would create a private company, or group of companies, much as private carriers have private carriers have replaced government-run PTTs in countries like Chile and Argentina.

Although the analogy between the international satellite sector and U.S. domestic marketplace is not perfect, it is worth noting that, across the globe, both technology and the telecommunications marketplace have changed dramatically. The decision to end the long-distance telephone monopoly in the United States and to introduce competition in that market has resulted in: lower end users costs, new services and technologies that have created hundreds of new U.S. companies and tens of thousands of new jobs for Americans. Thus, the Administration cannot dismiss the possibility of pursuing a course that would encourage greater competition in the international satellite arena.

The next option, partial privatization, would entail some kind of intergovernmental role, but the decision-making structure would be focused on the provision of competitive satellite services although some provision of public service interconnectivity would still be required. Reform proposals in this category envision an entity resembling the current regional Bell operating companies, which are a combination of purely commercial and government regulated entities.

The last option is continued operation as an intergovernmental organization with some improvements to the current structure, governance and management. The primary focus would continue to be on global interconnectivity for the provision of conventional services and safety-of-life at sea. The structure and functions of such an entity would be dominated by its intergovernmental status as stipulated by treaty.

While reform proposals will probably advocate one of these options over another for the restructuring of Intelsat and Inmarsat, our paramount concern remains that the public service obligations fulfilled by Intelsat and Inmarsat not be discarded. Both Intelsat and Inmarsat have proposed continuation of their public service obligations even when restructured and we are confident that if the proper care is taken, they will be even better able to serve the world community due to better technology and a more flexible structure -- without using their intergovernmental status as a barrier to other service providers.

Intelsat's public service obligation has included provision of global interconnectivity -- often referred to as universal service -- at non-discriminatory prices. In total, there are about 70 fixed satellite global, regional and domestic systems with approximately 200 commercial satellites planned or in operation. In addition, Intelsat has 20 satellites in operation and another 14 planned. Regional and domestic satellite systems throughout the world are growing and are expected to grow with even greater speed as a more level playing field is introduced in international satellite telecommunications. Thus, although there are some areas that are currently underserved by satellite communications -- Africa is such an area -- one may reasonably predict that all these facilities-based providers should be able to collectively ensure global interconnectivity.

Inmarsat was created to test the then-uncharted waters of mobile satellite communications and its public service obligation has been to ensure maritime safety-of-life communications. Inmarsat is considering a new role -- offering a full range of commercial mobile satellite services. Before proceeding down that course, we must ensure that this new role is consistent with its core public service responsibilities and is otherwise appropriate in the emerging competitive market for mobile satellite services. The Administration is concerned that the proposed Inmarsat affiliate would reap the advantages of Inmarsat by being named, managed and owned by Inmarsat, without also fulfilling the public service obligations of Inmarsat.

Another issue of concern is that Intelsat and Inmarsat currently conduct their business with certain privileges and immunities accorded to them as part of their treaty status. While these international satellite organizations believe the privileges and immunities to be of little commercial value, they do confer a standing unavailable to competitors. Thus, it can and has been argued that Intelsat and Inmarsat should surrender these privileges and immunities in conjunction with any effort to become privatized commercial enterprises.

The Administration is working hard to fully coordinate and develop an appropriate U.S. government policy regarding satellite issues. My colleague at the State Department, Ambassador-Designate Vonya McCann, has undertaken the task of chairing an interagency committee on these matters. In the committee, we are addressing these policy issues from the perspective of the following principles: promoting an open, competitive market for telecommunications services, ensuring equal status for all satellite service providers, maintaining public service obligations, and enhancing the growth of the global information infrastructure. Further meetings of the interagency group will occur this summer and fall.

Earlier this month, public hearings were held by the interagency committee on the entire range of satellite issues. At the hearing, we heard from a number of satellite providers, users, and interested individuals. We anticipate that some of these same issues will come up at the GII hearings sponsored by Secretary Brown and the Department of Commerce that are being held this week. In addition, NTIA has conducted a series of interagency meetings focused solely on the proposed Inmarsat affiliate.

In a somewhat related matter, NTIA is also involved in the development of U.S. proposals for the 1995 International Telecommunication Union (ITU) World Radiocommunication Conference (WRC-95), the results of which could have a direct impact on the U.S. satellite industry. NTIA, for a number of years, has promoted the needs of the mobile satellite service at the ITU, in such fora as Administrative Council meetings and most recently at WARC-92 and WRC-93. On the domestic front, NTIA, through the Radio Conference Subcommittee of the Interdepartment Radio Advisory Committee, is currently reviewing proposals that include items for WRC-95, as well as the agenda for WRC-97 and the preliminary agenda for WRC-99. NTIA will coordinate these positions with the Federal Communications Commission to identify final U.S. proposals and positions for these conferences.

Mr. Chairman, let me assure you of this: this Administration recognizes the complexity of the policy issues and legal perspectives attendant to the debate over the future of the global satellite industry. The Administration's goal is to keep the focus of our deliberations on what is best for the end users -- American users surely, but users around the globe as well. We believe that we can and we will develop the correct answers to these difficult issues if we continue to put the end user first.

Mr. Chairman, just as you have helped marshall new legislation through the House of Representatives that will introduce more competition into the telecommunications market, the Administration hopes to assist in an effort to ensure a level playing field for satellite telecommunications networks. We are on the threshold of a great opportunity in the area of global interconnectivity through satellites. We are transitioning from networks that have served us well in the past, but now must reconfigure themselves to deal with current and future competition.

President Kennedy called for a world woven together by the invisible tethers of satellite communications, a vision that became Intelsat. Just as the Kennedy Administration had the foresight to see technology not for what it is but for what it could be, the Clinton Administration also calls for a world woven together through a global information infrastructure. We intend to venture beyond the original vision to make global communications and information exchange by the end of this century as easy, ubiquitous, and cost-competitive as domestic calling is in the United States today.

Mr. MARKEY. And our final witness is the Honorable Vonya McCann, the Deputy Assistant Secretary of State for International Communications and Information Policy.

We welcome you.

STATEMENT OF VONYA B. McCANN

Ms. MCCANN. Thank you. Good morning.

My name is Vonya McCann. I am the U.S. Coordinator for International Communications and Information Policy and I am very pleased to be here this morning to discuss with you vital international communications issues.

I would note that this is my first appearance before Congress so I am asking you all to be kind.

International communications encompasses issues such as the free flow of information, trade in goods and services, foreign investment, bilateral and multilateral policy assistance to developing countries, and management and use of the natural resources of communications; that is frequency spectrum and satellite orbital positions. The importance of these questions to basic U.S. individual liberties, U.S. national security, and U.S. international competitiveness is increasing.

Vice President Gore highlighted the importance of telecommunications as an essential building block of economic growth and democratization and outlined a vision for the future at the ITU World Telecommunications Development Conference in Buenos Aires. He described the benefits of the development of a GII. The benefits include the ability to instantaneously share environmental, educational, medical, business, and agricultural information as a global community; to build sustainable economic progress; to forge strong democracies and new solutions to global problems; and to promote peace and understanding among nations.

The Vice President proposed that the GII would be based on the five following fundamental principles: private investment, competition, a flexible regulatory framework, open access and universal service.

There is great interest in the GII. As you noted, just last week we were in Moscow and the U.S. and Russian Federations signed a memorandum of understanding whereby we will cooperate and exchange information on the GII. I signed the MOU for the United States along with NTI Administrator Irving and FCC Chairman Hundt.

Those five principles are also the touchstones of the State Department's approach to international communications and information policy issues, including the specific topics the committee has asked us to address today.

The State Department has a long history of promoting the telecommunications interests of the United States in cooperation with its sister agencies. The underlying goal of the United States has consistently been to promote the principles of competition and private investment. In our view, this approach is the best means of satisfying the needs of customers in a global marketplace and stimulating technological innovation.

For example, the U.S. Government has and continues to vigorously support PanAmSat in achieving its hard-earned entry into the market. Our overseas embassies have helped to open the doors of market opportunity in foreign countries.

Some of the most important work has taken place in the context of the INTELSAT organization. Last year, the U.S. Government implemented changes in the U.S. policy that allows separate satellite system competitors to greatly increase public switch traffic. Later this year the threshold will be raised significantly again. We are continuing our effort to eliminate these Article XIV obligations altogether and we have accomplished similar streamlining regarding INMARSAT Article 8 coordination and continue to try to eliminate that as well.

Both INTELSAT and INMARSAT have working groups examining the future structure of those organizations in an increasingly competitive telecommunications environment. In both of those working groups, the United States has been successful in insisting that the full range of options be considered, including elimination of their treaty status.

As Larry noted, an ad hoc interagency task force is considering the U.S. Government position on any corporatization or privatization of INTELSAT and INMARSAT, including any role of the governments in those two organizations. Two meetings of the interagency group have been held and we also held a public meeting where we permitted interested members of the public to present their views. I hope that this group will come to a consensus of U.S. Government positions on the future of those two organizations before the end of the year.

I would note that we have discussed these issues with the staffs of the committees and we will continue to consult with you as we go forward.

Of course, INTELSAT and INMARSAT were originally created to fulfill important public service obligations: universal service, nondiscriminatory pricing, maritime safety and distress service. Everyone agrees that those obligations should be maintained and that would be a fundamental condition of any changes the United States pursues.

The Clinton administration is bringing a new vision, that of the GII, to international telecommunications policy. And the Department will be in the forefront of advancing it in the many fora in which we participate.

The potential benefits of the GII for the United States, developing countries, and developed countries, are indisputable. We must work effectively with the private sector whose resources and expertise will actually build and operate the GII.

Thank you for the opportunity to discuss these important issues and I look forward to your comments, if not your questions.

[The prepared statement of Ms. McCann follows:]

Statement of

Vonya McCann, Coordinator
International Communications and Information Policy
Department of State

before the

Subcommittee on Telecommunications and Finance
United States House of Representatives

Good morning. My name is Vonya McCann. I am the United States Coordinator for International Communications and Information Policy. I am pleased to be here this morning to discuss with you vital international communications issues.

In 1983 when Congress mandated the establishment of an Office of the Coordinator for International Communications and Information Policy in the Department of State, you noted that:

> international communications and information policy issues are integral elements of overall U.S. foreign policy and must coordinated within the central foreign policy agency -- the Department of State. In this way, the specialized skills, not only of State Department personnel, but of the personnel of all agencies of Government which are involved in various aspects of this broad field can be brought to bear most efficiently in the service of U.S. national interests.

This statement is as true now as it was in 1983. There continues to be an important need for effective policy formulation and coordination in international communications and information policy. International communications encompasses such issues as free flow of information, trade in goods and services, foreign direct investment, bilateral and multilateral telecommunications and information policy assistance to the developing countries, and management and use of the natural resources of communications (frequency spectrum and satellite orbital positions). The importance of these questions to basic U.S. individual liberties, U.S. national security and U.S. international competitiveness has only increased since the creation of the Coordinator's Office a decade ago. The merging of the Department's telecommunications functions into the Bureau of Economic and Business Affairs, while maintaining the position of Coordinator with the rank of Ambassador, is intended to strengthen the Department's handling of telecommunications matters.

The Department's role in international communications and information policy is derived, in part, from the President's power to conduct the foreign relations of the United States, which is exercised on a day to day basis by the Secretary of State pursuant to statute. Certain of the Department's authorities are set forth in section 35 of the State Department Basic Authorities Act, which provides, in part, that "[t]he Secretary of State shall be responsible for the formulation, coordination, and oversight of foreign policy related to international communications policy." Other Department responsibilities are established by other statutory provisions. For example, the Communications Act of 1934 specifies the right of the Secretary of State to be heard with respect regarding applications for "section 214" authorizations with respect to applications involving service to foreign points.

Moreover, the President has delegated to the Secretary of State various specific functions. A 1978 Executive Order delegated various telecommunications functions to, among others, the Department of Commerce and the Department of State. For example, the Executive Order delegated to the Secretary of State, in coordination with the Department of Commerce, the FCC, other concerned federal agencies and Comsat, the exercise of supervision over Comsat's relationships with foreign governments or entities and with international bodies, as appropriate, to "assure that such relationships shall be consistent with the national interest and foreign policy of the United States." A number of the 1978 Executive Order's delegations have been recently codified by statute. Other Executive Orders and Presidential delegations have given the Department other responsibilities. For example, since 1948, the Secretary has had the authority to designate U.S. delegations to international conferences.

For many years, United States telecommunications policy has been based on promoting competition among private sector providers of communications services and facilities as the best means for ensuring that customer needs are effectively and efficiently satisfied. It has been our experience that consumer desires for new services, lower prices and enhanced technology are more likely to be met through competitive open markets than through regulated monopolies.

Vice President Gore highlighted the importance of telecommunications as an essential building block of economic growth and democratization and outlined a vision for the future at the International Telecommunication Union's (ITU) World Telecommunication Development Conference in Buenos Aires, in March 1994. Vice President Gore outlined U.S. views of the benefits of development of a new Global Information Infrastructure (GII). These benefits include the ability to instantaneously share environmental, educational, medical, business and agricultural information as a global community; to build sustainable economic progress, to forge strong democracies and new solutions to global problems; and to promote peace and understanding among nations. The Vice President proposed that the GII should be based on the following five fundamental principles:

First: Private investment;
Second: Competition;
Third: A flexible regulatory framework;
Fourth: Open access; and
Fifth: Universal service.

There is great interest in the GII. Just last week, in Moscow, the U.S. and the Russian Federation signed a Memorandum of Understanding whereby we will cooperate and exchange information on the GII. I signed the MOU for the United States along with NTIA Administrator Irving and FCC Chairman Hundt.

Those five principles are also touchstones of the Department of State's approach to international communications and information policy issues, including the specific topics the Committee has asked us to address today.

The Department of State has a long history of promoting the telecommunications interests of the United States in cooperation with our sister agencies. In the International Telecommunication Union, a specialized agency of the United Nations and one of the world's oldest international organizations, the United States has played a key leadership role in ensuring the adoption of international frequency assignments, satellite orbital assignments, technical standards, and tariff policies which promote efficient, interoperable global communications by competing providers. At the same time, we have been successful in ensuring that these international regulations and standards retain sufficient flexibility so as not to stifle technological innovation.

The Department is also playing a central role in promoting the goals of the GII in other international fora, including the International Telecommunications Satellite Organization (INTELSAT), the International Maritime Satellite Organization (INMARSAT), the Organization of Economic Cooperation and Development (OECD), the Inter-American Telecommunications Commission (CITEL) and the Asia Pacific Economic Cooperation (APEC) meetings, as well as in a wide variety of other bilateral and multilateral meetings. In all of these fora, the underlying goal of the U.S. has consistently been to promote the principles of competition, privatization, open markets, flexible regulation and the widest possible provision of communications services. This approach, in our view, is the best means of satisfying the needs of customers in the global marketplace and stimulating technological innovation.

One example of U.S. success in these efforts was exemplified earlier this month with the launch of the PanAmSat-2 satellite. As you know, PanAmSat was the first private competitor to INTELSAT. The PanAmSat-2 satellite expands this company's reach to five continents. This is part of an ongoing process of many years of the Department promoting broader participation in the international satellite market. Next spring will bring, with the launch of PanAmSat-4, the first global competition in fixed-satellite services.

The U.S. government has and continues to vigorously support PanAmSat in achieving its hard-earned entry into the market. Our overseas embassies have helped to open the doors of market opportunity in foreign countries. We have effectively repelled attempts to block access to needed orbit positions for satellites.

Some of the most important work has taken place in the context of the INTELSAT organization. Last year, the Executive Branch implemented changes in U.S. policy that allow "separate" system competitors to INTELSAT to offer up to 1250 bearer circuits of public-switched-traffic per satellite, which will accommodate over five thousand simultaneous telephone conversations per satellite. A State/NTIA/FCC/Comsat delegation, led by the Department, was successful in convincing a special INTELSAT Working Group to endorse further streamlining of the treaty-mandated consultation procedures that are applied to "separate" systems. Later this year, the threshold for streamlined treatment is expected to be raised to 8000 bearer circuits (over 30,000 phone calls) per satellite. While no "separate" system operator has claimed that the existing thresholds are impeding business, we agree fully that the INTELSAT consultation process is an anachronism and that these obligations under Article XIV of the INTELSAT Convention, particularly the non-technical portions, should be entirely eliminated. We are continuing our efforts to eliminate these Article XIV obligations.

Competition is of course not simply a matter of interest to INTELSAT's competitors. INTELSAT's management and signatories recognize that the international telecommunications landscape is changing and that they must change with it. INTELSAT faces competition not only from emerging "separate" systems but to an even greater extent from undersea fiber-optic cables. The INTELSAT Working Group that has been working on streamlining the consultation process also has begun to consider restructuring of the organization itself. The United States has been successful in ensuring that attention is given not only to possible improvements in the international organizations, but to eliminating altogether the treaty status and intergovernmental character of INTELSAT, including its privileges and immunities.

Likewise, in INMARSAT a process is underway to determine how the organization can be restructured to meet changed circumstances. There is general agreement among the major parties, signatories and INMARSAT management that the current governance and financial structures are too cumbersome and rigid to permit the organization to function effectively in a more competitive, fast moving environment. The U.S. was instrumental in establishing an intersessional working group to study various options and has insisted that the full range of options be considered, including the possibility of privatizing INMARSAT and eliminating its treaty status.

The extent and course of "corporatization" or "privatization" of both INTELSAT and INMARSAT are the subject of active Executive Branch consideration at this time. An ad hoc inter-agency task force, of which I am chair, is considering the U.S. Government position on the appropriate future structure for both INTELSAT and INMARSAT, including the role of governments in the organizations. Two meetings of the inter-agency group have been held. We also held a public meeting at the State Department on July 14 to permit interested members of the public to present their views. We intend to hold another meeting of the inter-agency group in the next month. I hope that this group can quickly come to a consensus on USG positions on the future of the two organizations. Our goal is to complete this process as quickly as possible, before the end of the year.

I would note that the instructional agencies have discussed these issues with staff of the committees and we will continue to consult with you as we go forward.

Of course, INTELSAT and INMARSAT were originally created to fulfill important public service obligations, including universal service, non-discriminatory pricing and maritime safety and distress service. Everyone agrees those obligations should be maintained, and that would be a fundamental condition of any changes the U.S. pursues.

As part of our effort to encourage competition, we have been working to simplify or eliminate the requirements of Article 8 of the INMARSAT Convention, which requires prior determination by INMARSAT that a competing maritime system will not cause economic harm and will not technically interfere with the INMARSAT system. At the last Assembly of Parties in October 1993, it was decided that, at least during the period until the next Assembly in 1995, no new competing system would be deemed to cause significant economic harm and prior notification would be necessary only to avoid technical interference with the INMARSAT system. The Assembly indicated that the possibility of modifying or deleting Article 8 from the Convention should be considered. The U.S. delegation proposed deletion of Article 8 at the last session of the INMARSAT Intersessional Working Group in June.

The State Department takes its role with respect to INTELSAT and INMARSAT very seriously. We have been actively engaged, in conjunction with the U.S. Signatory and NTIA and FCC, on all major issues in the organizations. The U.S. took a lead role at the INMARSAT Assembly of Parties last fall and will do so at the upcoming INTELSAT Assembly in October and INMARSAT Extraordinary Assembly which may be held in November. The Department, along with the other instructional agencies, works to ensure that INTELSAT and INMARSAT operate in conformity with their basic instruments and on a sound commercial basis and that decisions such as procurement are based on sound business principles rather than political considerations.

The Clinton Administration is bringing a new vision - that of the GII - to international telecommunications policy, and the Department will be in the forefront of advancing it in the many fora in which we participate. The potential benefits of the GII for the United States, developing countries and developed countries are indisputable. We must work effectively with the private sector, whose resources and expertise will actually build and operate the GII, to make it happen.

Thank you for the opportunity to discuss these important issues. I look forward to your comments or questions.

Mr. MARKEY. I thank the Assistant Secretary very much. And that completes the opening statements of our witnesses.

And now, if the staff is ready, we can go to the tape and then we will go to questions from the subcommittee members.

[Videotape shown.]

Mr. MARKEY. Thank you very much. Thank you to Motorola for providing that to us.

Now, we will turn and recognize members of the subcommittee for questions, and the Chair will recognize himself.

Let me begin by asking you, Mr. Chairman, if I could, many of the so-called "Big LEO" applicants who hope to bring mobile satellite services to the market before the decade is out need some certainty with regard to the licensing timetables that will be constructed. It is without question to our country's advantage that we have been in a deregulatory mode with regard to land lines over the last 15 years or so in this country.

It has given us a real lead over most of the rest of the countries of the world in terms of the introduction of modern technology, and as a result, most of the countries in the world are importing American technology with regard to land line.

What possible reforms do you think we might need to implement in order to expedite getting to the point where licensing of these companies is put in place so that our American leadership is evident by the year 2000 in terms of marketplace success?

Mr. HUNDT. Well, Mr. Chairman, with respect to the so-called "Big LEO's" specifically—LEO stands for "low-earth orbital satellite"—you have already begun and are in the process of taking an important step that would benefit the Federal Communications Commission, and that is you are proposing to increase our resources so that we can work more expeditiously and bring the appropriate resources to bear on the very, very complicated technical and economic issues that are presented to us when applicants propose to use the exact same frequency in ways that compete with each other and are mutually exclusive.

With respect to Big LEO's, as you know, Mr. Chairman, there are two basic LEO system designs and the two designs on their face are technically incompatible. We are loathe at the Commission to pick winners in a competition that we hope will be determined in the marketplace and to have to do that picking by way of forecasting what technology is preferable in advance of letting the market make that call.

Our preference in many, many cases is to have the parties try to accommodate each other so that their competition will not be resolved at the FCC but will be resolved in the marketplace. We allowed that to occur by conducting a negotiated rulemaking among the competing applicants for Big LEO's. They failed to resolve it with each other. If you ask each of them, they will offer you a reason why, and you may find as we have found, that their explanations differ according to their different points of view. Consequently, unless and until they are able to accommodate each other, they have basically thrown the ball into our court.

To be very specific about it, we intend to resolve this matter in October of this year. If our resolution requires amended applications, which I think most of the parties will tell you is more common than not—I am not trying to forecast a result, I am just saying that it is more common that that happens than not—then we will hope to be able to actually grant the licenses by January.

Mr. MARKEY. I think that is good news. And I think that everyone should be placed on notice that a resolution is imminent and that all parties should understand the goal that I think is commonly shared; that the sooner we get down to the business of actually implementing this vision, the better off our country is going to be. After all, we are trying to ensure that we have the maximum number of jobs in this country, and the larger the lead we have on the rest of the world, the better off we will be.

Privatization of COMSAT and INTELSAT and INMARSAT bring a number of very complex policy issues to the fore as well. What safeguards should be put in place in order to ensure that there is true competition in the marketplace, that this historic role that COMSAT has played is not used in a way that undermines the rapid introduction of real competition into each one of the various communications marketplaces?

Mr. HUNDT. Well, I think COMSAT itself recognizes that privatization is the right course of action. It is the right philosophy. But as you mentioned in your opening statement, there are important and subtle questions of just exactly how this should be accomplished.

And as Ms. McCann mentioned, there are certain social goals that we do as a country want INTELSAT and INMARSAT to pursue: Goals of universal service and goals of making sure that service is provided in maritime distress situations.

Right now, as a government, we are in the process of exploring just exactly how to accommodate those goals without, at the same time, tilting the competitive balance in favor of a privatized INTELSAT and INMARSAT. I am a little loathe to delve deeply into the subject for the candid reason that Ms. McCann has been chairing these discussions for the government with our assistance. But they are really in progress.

Mr. MARKEY. Well, let me ask Ms. McCann, then, what if we privatized INMARSAT and INTELSAT and COMSAT and then AT&T bought it? What are the policy implications of one company purchasing that whole operation? Or for that matter, what if a foreign company purchases the whole operation after we privatize it? What thought has been put into that issue of the law of unintended consequences having been invoked radically and almost in contradiction to what we have been trying to achieve?

Ms. MCCANN. Well, I would be loathe to pass judgment on a situation that hasn't yet presented itself, but I would say that the three of us will look at that issue closely and make our views known.

Mr. MARKEY. Mr. Irving, have you given any thought to the question of whether or not AT&T should be allowed, or any other company for that matter?

Mr. IRVING. We have given no thought prior to this conversation. We will give it a lot of thought subsequent to this conversation.

Mr. MARKEY. I appreciate that.

COMSAT and INTELSAT have, as well, expressed interest in getting into the DBS business and have proposed that a satellite be put up over Latin America for that purpose.

How should we approach that policy? What instructions should we give to COMSAT pending privatization when it seeks to move into commercial areas?

How do we ensure that there is proper protection, perhaps in the form of a separated subsidiary, against cross subsidization?

As they move into competitive areas, and we have not yet seen full privatization, how do we handle these issues in order to make sure that those who are already out in that marketplace are being protected?

Mr. IRVING. I don't think we have come to a full resolution of that question, but I think there is some interest in the administration of considering a standstill on some issues like that. It may make sense while we are pondering questions involving more competitive areas of international telecommunications, that while we are considering what the new INTELSAT-INMARSAT should look like, we should not run the risk of harming competition. We have not made a final decision but certainly some type of standstill situation is on our mind and is something that we are contemplating.

Mr. MARKEY. I guess the important thing for us to all keep in mind is that we don't want to see all the markets gobbled up before the introduction of competition. We want to make sure that they don't move in and take all the good slots because of their preexisting relationship with all the governments around the world.

And it is not to say that we don't want them to get into this business, of course we do. But just that it is done in a way that reflects the level playing field that we are hoping to construct.

As well, and I think this is important to focus upon, there is this competition which has broken out over the last decade or so between COMSAT and INTELSAT and the underwater cables in this world with regard to the delivery of information services. On the one hand, there is competition which exists in each of those markets. On the other hand, INTELSAT has 20 satellites operating at roughly a 60 percent utilization rate right now.

In the next few years, they will be sending up 14 more and have requests to do so. Some as replacements. But the net effect will be a doubling of their capacity, even though right now they only use 60 percent of their existing capacity. So if they are using 60 percent of 100 percent, and they are going to double that capacity, that is 200 percent and that would mean 60 out of 200 percent, what would that be used for?

What is the intention of COMSAT as they double that capacity? Should we look closely at that excess capacity that they are requesting?

Should we look at how many spaces we have along the equator and wonder whether or not COMSAT should have 14 of the very few remaining slots along that borderline and whether or not we ought to ensure that there will be other private companies as well who will have some preferences that will be given in those key orbital slots?

Mr. Chairman?

Mr. HUNDT. I think you are rightly suggesting, Mr. Chairman, that there is a need here for antitrust-type scrutiny of these emerging satellite markets. An incumbent with a large market share that would increase its capacity certainly has the potential to use that extra capacity to attempt to maintain its monopoly share through a variety of devices that might involve questionable pricing or other practices. I mean, that is certainly a valid question, as you well know, Mr. Chairman.

The important thing here, I think, is to all come to agreement on the fact that a privatized INMARSAT or INTELSAT will have to be judged by the same standards as any other private company. The antitrust-type analysis that we would bring to bear would apply to them just as it would to anyone else. That is the reason why it is so important to eliminate the privileges and immunities that are currently attached to these two treaty-based organizations, as Mr. Irving mentioned.

Mr. MARKEY. Have you got a thought on this, Mr. Irving?

Mr. IRVING. I guess I have a thought consistent with what Chairman Hundt said. It has got to be a balancing act. On the one hand, we don't want to artificially depress technology. We do expect more international traffic. We have to make sure that INTELSAT and INMARSAT are able to respond to that but we don't want this leveraging their privileged status to harm the creation of competition. As an administration, we have to deal with it to balance those competing concerns.

Mr. MARKEY. And again, I want to restate, I do support the privatization of INTELSAT, but I don't think we should just set the date for privatization and then, as it occurs, begin to deal with the safeguard issues and the competitive issues that may have been raised during the interim period as they make the transition towards the private sector strategy.

But we haven't built in the safeguards, the protections, the insurance that reflects the opportunities in that new world. And I guess that is the primary concern that I am trying to address here this morning, that we have anticipated those issues, that the safeguards are already in place long before we reach the point where that snapshot moment occurs and we move from this near monopoly status over to a private sector personality.

Mr. HUNDT. If I could say so, you and your committee pursued this same theme successfully with respect to your path-breaking initiatives in the local telephone industry and in the cable industry, where in the bill that now has passed so resoundingly through the House, you recognize that it is very important to take special steps to introduce competition in markets where there really isn't much, if any, competition or where it is much more limited than it should be and that the incumbent providers are going to need to make way in a variety of specific manners for new entrants. I totally agree that the same point can and should be pursued with respect to satellite-related markets.

Mr. MARKEY. My time has expired.

The Chair recognizes the gentleman from Texas, Mr. Fields.

Mr. FIELDS. Thank you, Mr. Chairman.

Ms. McCann, you said something earlier that took some of us on this side of the aisle by surprise, and if I understood you correctly, you said that there would be closure on the privatization decision sometime before December.

Ms. McCann. What I said was that I hoped that the interagency process could reach some sort of consensus before the end of the year.

Mr. Fields. We certainly want to encourage that. And it seems to me that even after that initial decision is made, that there is going to be a period of time—of course Congress is going to have to act to pass legislation allowing certain things to happen. And then also, I assume that your interagency group will have to determine how they begin to lobby the signatories on the decision is that correct?

Ms. McCann. That is correct.

Mr. Fields. Could you give us an idea of what you anticipate between now and December in terms of your process and then what you would anticipate say post-decision?

Ms. McCann. What we are hoping to do within the next month is comb through all of the public comments we have received and put together a paper outlining some options for the interagency group. We hope to meet again with that group and discuss those options during the end of August, first part of September, that time frame. At that meeting we hope that we can come to some sort of consensus on the big picture, the general outline of the direction in which we should go. And in the months after September, we would be working on the details of any specific U.S. Government position or proposal.

Mr. Fields. Let me ask your other interagency partners if they agree basically with the analysis of the process and the timetable.

Mr. Irving. It sounds correct to me. We have been working closely together and it sounds like a workable process.

Mr. Hundt. I don't differ.

Mr. Fields. Let me jump to a broader question, then. I looked at some of the prehearing questions that had been submitted and some of the responses, and Chairman Hundt, you said in response to the first question that all the agencies at times may not have exactly the same concern on spectrum issues because of the different areas of responsibilities, which leads me to the question, do you think that the policy-making structure should be changed or is there improvement that can be made?

If I understand the basic thrust of what all of you are testifying today, you are basically saying that you get along very well and things are working. But when I read that question, I kind of wondered if there was some improvement that could be made.

Mr. Hundt. Well, I think if I can say so, Congressman, that improvements did need to be made. It was imperative and all three of us recognized that it was imperative that we determine exactly how we were going to work together efficiently and effectively, make decisions, not let them linger, and not allow the bureaucracy, really, to drag down our common will to make those decisions.

I don't think it was necessary or is necessary that there be any statute or regulation that is changed. It is just necessary that we have the will and the way and the procedures to act in a coordinated fashion. And that is what we have done.

Now, I would say there are two keys to this: the first is that Vonya makes a really great cup of coffee. And consequently, we are inspired regularly to come to her office.

And second, quite seriously, we have a work plan that we follow. We meet monthly or more often on occasion. Our staffs not only are inspired by the work plan but I think they inspire us to keep up with this, and this is an imperative.

It has not always been the case that that kind of coordination has been accomplished. Each of us in our own agencies discovered separate histories of the lack of coordination. And I really feel quite good about the success that we have achieved in coordination.

But the last and most important thing, I should say, is that coordination on the executive side in this area has to be top down as well as bottom up. It has been imperative that the White House show leadership and it has shown leadership. Everywhere in the world we still hear very resonating echos of the Vice President's famous speech in Buenos Aires, but behind that are many, many hours of effort on the part of the White House and the Vice President's office, in particular, to show leadership in these areas.

These are the reasons why we are feeling good about the coordination. It is very much a question of these people and the way we are working together.

Mr. FIELDS. Good.

On the issue of INTELSAT-INMARSAT, Ms. McCann, have you taken the lead on the interagency group?

Ms. MCCANN. I have chaired the interagency group.

Mr. FIELDS. What about the preparations for WRC-95; are you taking the lead on that?

Ms. MCCANN. Each of the agencies has a responsibility in that process. NTIA has taken the lead in organizing government efforts on putting together positions on Federal spectrum questions.

The FCC has taken the lead in its area by putting together an industry advisory committee. Those two efforts will be combined at some point and brought to the State Department. If there are differences in the outcomes, then we will work with both of the other agencies to resolve those differences and put forth a unified U.S. position at the ITU.

Mr. FIELDS. Have you already begun to establish priority items for your agenda for WRC-95?

Ms. MCCANN. Yes, we have.

Mr. FIELDS. You want to share some of those with us?

Mr. HUNDT. Well, I think my take on Vonya's answer is that we have begun it but we have not set them. We put out a notice of inquiry. Many comments were received from industry to help us set those priorities, and that advisory council that Vonya mentioned is designed to get the priorities from the private sector.

We are relying very heavily on the private sector to tell us what they need done at WRC-95. This is quite similar to what was accomplished at WRC-92 where it is worth noting that we had the following situation: the first Big LEO applications had been filed in 1990, and I believe others were filed in 1991. The WRC-92 Convention was an important time to have all the other countries in the world agree to an international spectrum allocation that would accommodate those applications. Similarly, as we get to WRC-95, it is going to be very, very important to resolve the feeder link issue that is clearly going to be positioned right at that time.

Mr. FIELDS. COMSAT and some other companies, as I understand, have recommended a full-time WRC preparatory office at the FCC; do you agree with that?

Mr. HUNDT. We haven't decided structurally to do that. We have under serious consideration, that we may be announcing very soon, a reorganization that will basically, I think, be another way of accomplishing the exact same goal, because I think that they are right in substance that we need to devote significant resources. This is a major opportunity for our government.

We need to have a coordinated, diplomatic and business-oriented strategy, and we need to raise that strategy in bilateral discussions. We need to be talking about it in Kyoto at the ITU plenipotentiary this fall and in a variety of occasions. And here again I have to say that the White House is showing leadership on this issue as well.

Mr. FIELDS. One last comment. On behalf of my colleagues on this side of the aisle, we would like to be involved in the process. And also be consulted and certainly give input.

Mr. HUNDT. Yes, I would like that as well. We will take specific steps to have a work plan of that sort as well.

Mr. MARKEY. The gentleman's time has expired.

The Chair recognizes the gentleman from Ohio, Mr. Oxley.

Mr. OXLEY. Mr. Chairman, I would like to yield to my colleague from Illinois at this point.

Mr. MARKEY. The gentleman from Illinois, Mr. Hastert, is recognized.

Mr. HASTERT. Thank you, Mr. Chairman.

I am sorry I was late. I would ask permission to put my opening statement in the record, if that is possible.

Mr. MARKEY. Without objection.

[The prepared statement of Mr. Hastert follows:]

STATEMENT OF HON. J. DENNIS HASTERT

I commend the chairman for holding this hearing this morning to explore many of the current issues associated with the Global Information Infrastructure (GII). I appreciate the opportunity to hear testimony from our distinguished panel of witnesses on privatization of INTELSAT and INMARSAT, new satellite-delivered technologies and services, and the United States' role in the global information marketplace.

I particularly commend the chairman for comments he made during the FCC Reauthorization mark-up concerning his intention to ask the Commission about its timetable for finishing work in creating the "exciting and promising new satellite industry, one which will provide a global dialtone to the world." The chairman was, of course, referring to the development of Low Earth Orbiting (LEO) satellite technologies. This development is currently on hold as Big LEO operating licenses under section 319 of the Communications Act of 1934, as amended, have been pending at the FCC for almost 4 years. I believe this proceeding must come to an expeditious resolution in order to preserve the current edge held by the United States in the development of global wireless communications services.

In fact, I would like to take this opportunity to announce my intention to send a letter to you, Chairman Hundt, which I hope many of my colleagues will join me in, requesting that the FCC submit to this committee by August 1, 1994, a schedule for accomplishing (1) the adoption of its Report and Order in the Common Carrier Docket No. 92-166 on or before October 15, 1994, which includes a final spectrum sharing plan, and (2) the granting of Big LEO licenses on or before January 31, 1995. It is time for the Commission to act—before the leadership in this critical area shifts abroad.

Again, thank you for holding this important hearing and I look forward to the testimony of our panels this morning.

Mr. HASTERT. Mr. Chairman, I really appreciate you holding these hearings. I think they are timely. There are some really important issues literally hanging out there. And I understand before I got here, Mr. Chairman, you asked about the timetables for the so-called Big LEO licenses. I can share your concern.

In fact, I would like to announce my intention, Chairman Hundt, to send you a letter requesting that the FCC develop a schedule for accomplishing, one, the adoption of this report, and order in the Common Carrier Docket 92-166 on or before October 15th, 1994, which includes a final spectrum sharing plan and, two, the granting of Big LEO licenses on or before January 31st of 1995. It is time for the Commission to act on this issue before the leadership in this critical area shifts abroad, and we lose American jobs and American technology.

First of all, would you wish to comment on that?

Mr. HUNDT. I will be delighted to get the letter and we will respond as you said in a very timely manner. I think that the thrust of your remarks is entirely consistent with what I tried to communicate to the chairman before you came in. I am just saying that I am not taking issue with you.

Mr. HASTERT. Fine. Could you, Chairman, comment on the reasoning behind not allowing the two Big LEO applicants to proceed with their construction programs when they are essentially ready to go with their technologies?

Obviously, we have heard from several of them. They have employees out there that they can't hold on to indefinitely and it is important that this process move on.

Mr. HUNDT. It is important. I am advised by my general counsel that actually I can't comment on the reasoning. These are restricted proceedings that are currently before the Common Carrier Bureau and, unfortunately, I am really not at liberty to give you an answer as to the rationale.

Mr. HASTERT. Without probing any farther on that because I would have to lead off of what your answer is, it is important that we do move forward. I know it is a tremendous technology that we have the potential of leading the world in. And we need to move forward and look forward—I will be sending you that letter and look forward to your response.

Mr. HUNDT. I will very much appreciate having your views, and I will assure you that we will take them into serious account.

[The following letter and response was submitted:]

HOUSE OF REPRESENTATIVES,
Washington, DC, August 9, 1994.

HON. REED HUNDT,
Chairman, Federal Communications Commission, Washington, D.C.

DEAR MR. CHAIRMAN: I am writing to thank you for your commitments, during the recent Telecommunications and Finance Subcommittee hearing, concerning swift resolution of the matters involved with Common Carrier Docket No. 92-166, the "Big LEO" proceeding. By adopting a Report and Order in this proceeding on or before October 15, 1994, completing licensing of Big LEO systems on or before January 31, 1995, and taking appropriate action on pending section 319 (d) waivers concurrent with this schedule, the Commission will have put this matter back on track.

Clearly, this proceeding has been overtaken by global market developments and delay is hurting U.S. companies. Nearly 4 years after the first applications were filed, and over a year after the Commission staff proposed a band sharing plan which treats all LEO's fairly by permitting all qualified LEO applicants to be licensed, these five applicants are without licenses.

This is a global, high-tech service, and U.S. LEO systems mean U.S. high-tech, defense and aerospace jobs. U.S. LEO companies were the first in the world to develop systems to offer this service, but their lead has shrunk because our regulatory process has dragged on. The inability of applicants to proceed with construction, through licensing or waivers, has already added millions of dollars to the system costs of those applicants ready to proceed with satellite construction. Each day of further delay compounds the financial and competitive harm and postpones the day when service will be available to the public.

Those applicants with the most invested in development have the most to lose by delay; they are apt to the most effective global competitors and the greatest contributors to U.S. employment, defense conversion and technological development. Therefore, that the parties have not been able to resolve the remaining issues on their own does not mean that the issues can not now be resolved; rather it evidences different motives and levels of effort and investment among the parties.

That absurd penalization of U.S. private sector initiatives means that while the Commission is adhering to the time-frame you set out during the hearing, it must consider section 319(d) construction waivers. I understand it to be the Commission's intention to consider such waivers concurrent with its vote on the Report and Order. This is an important aspect of the problem now before us, and it underscores our firm belief that the government should not stand in the way of private sector companies willing to put their own money at risk to keep their projects on schedule.

Again, we appreciate your swift and constructive response.

Sincerely,

J. DENNIS HASTERT, *Member of Congress.*

FEDERAL COMMUNICATIONS COMMISSION,
OFFICE OF THE SECRETARY,
Washington, DC, September 9, 1994.

HON. J. DENNIS HASTERT,
House of Representatives, Washington, D.C.

DEAR CONGRESSMAN HASTERT: Thank you for your letter dated August 9, 1994 to Chairman Hundt, regarding the section 319(d) waiver request filed by Motorola Satellite Communications.

Your letter was forwarded to the Office of the Managing Director for reply in deeping with the Commission's *ex parte* rules, which deal with communications relative to all "restricted" proceedings under consideration by the Commission. The Managing Director asked me to respond on his behalf.

The *ex parte* rules require service on all parties of filings addressing the merits or outcome of restricted proceedings. Because the request for waiver has been formally opposed, the proceeding is considered "restricted" and remains so until such time as a Commission decision is made and is no longer subject to reconsideration or review by the Commission or the courts. See 47 CFR section 1.1208(c)(2). The request seeks authority to commence construction of Motorola's IRIDIUM system prior to authority for construction being granted on its pending mutually-exclusive application for a Low-Earth Orbit satellite system in the Above 1 GHz MSS bands (File No. 9-DSS-P-90(87).

In accordance with FCC Rules as found in 47 CFR section 1.1212(e), I have provided disclosure of your communication through issuance of the public notice attached. Additionally, this letter and your communication have been placed in a public file associated with (but not made a part of) the record in the proceeding. See 47 CFR section 1.1212(d).

You may be assured that the Commission will closely examine all evidence in the record in order to determine which course of action will best serve the public interest, convenience and necessity.

Sincerely,

WILLIAM F. CATON, *Acting Secretary.*

Mr. HASTERT. Thank you, I yield back.

Mr. MARKEY. The gentleman's time has expired.

The Chair recognizes Mr. Oxley.

Mr. OXLEY. Thank you, Mr. Chairman.

Who won that game?

Mr. IRVING. Northwestern lost, as usual; Xavier won. Another Ohio team beat us again.

Mr. OXLEY. I just wanted to clear that up for the record.

Chairman Hundt, I know that Congress grandfathered the negotiated rulemaking in the Big LEO's, but as you indicated, so far we failed to reach closure on that issue. Given that failure to reach closure, at least if it continues, why shouldn't these companies resolve the issue through an auction?

As you know, and the chairman mentioned just earlier, that the auction process appears to be a huge success. And we hope it continues to be a huge success.

Given the failure to reach closure on this issue, what would be wrong with opening up the process to an auction at this particular time?

Mr. HUNDT. Well, Congressman, I think that is a very interesting and valuable point to raise. Indeed, where there are mutually exclusive applications, and this may be such a case if the parties cannot or we cannot for them determine how to make them nonexclusive, an auction is certainly a possibility for figuring out how to award the licenses. Another possibility is the lottery and still another is the comparative hearing.

I would, myself, very much look forward to the answers of the parties to the question that you have posed because I know that they will have strong views on that subject and we should be apprised of those views. I am glad that you will have the chance to put them on the record.

We have said in our further notice of proposed rulemaking that if the parties cannot resolve this matter among themselves, and if the applications are mutually exclusive, we will consider the auction technique.

Mr. OXLEY. Would you have the authority to do that now or would you have to come back to the Congress for authorization?

Mr. HUNDT. We would not have to come back.

Mr. OXLEY. But the statute created the grandfather clause?

Mr. HUNDT. Our reading is that we would not have to come back to you. If there is another view, we are happy to hear it.

Mr. OXLEY. Counsel appears to agree, that is encouraging.

With that, I yield back the balance of my time.

Thank you, Mr. Chairman.

Mr. MARKEY. The gentleman's time has expired.

The Chair would recognize himself for a brief second round. We want to get to the second panel as well, but if other members wish to ask questions, that is also appropriate.

One of the key issues for companies hoping to offer mobile satellite services is that they get similar market access to other countries which COMSAT enjoys with other INTELSAT signatories. Do you believe that the United States should aggressively pursue such market access for other U.S. companies through INTELSAT and INMARSAT treaties and that COMSAT should be instructed to pursue this policy, Ms. McCann?

Ms. MCCANN. The U.S. Government—the three agencies here—do aggressively pursue market access on behalf of those companies. We have bilateral discussions with a variety of foreign governments and in those discussions we pursue that issue with vigor, I assure you. And we will continue to do that.

As I indicated on the INTELSAT competition side, the embassies can be of particular help to these companies and I would offer that help and invite any company wishing or desiring the help of the State Department in that regard to come see me. My door is always open.

Mr. MARKEY. Mr. Chairman?

Mr. HUNDT. I would echo the exact same statement.

Mr. IRVING. I would echo it and state that Secretary Brown has been particularly aggressive in assuring commercial opportunities for U.S. companies in the telecommunications sector and that would include market access issues.

Mr. MARKEY. A witness on the second panel, Edward Cheramy from IDB Communications unfortunately could not come, but let me read briefly from his testimony if I could, because I think it shows some of the problems that companies encounter when they run into COMSAT, which is the sole provider of INMARSAT space segments and is our representative.

Here is what Mr. Cheramy had to say. His testimony reads that a deal to get better prices included other provisions. He says this: "We could not advocate direct access. We could not seek structural separation of COMSAT's maritime service business. We had to agree to support certain of COMSAT's requests for regulatory relief. We had to agree to be regulated as a dominant carrier until and unless COMSAT was no longer regulated as a dominant carrier"—mindful of the fact that they were just trying to enter this marketplace, but they would be regulated as a dominant carrier. And Mr. Cheramy says: "And what did we do in response to COMSAT's demands? We agreed to them. We sold our soul to the devil in order to get into this business."

[Testimony resumes on p. 78.]

[The prepared statement of Mr. Cheramy follows:]

IDB

U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON ENERGY AND COMMERCE
SUBCOMMITTEE ON TELECOMMUNICATIONS AND FINANCE

HEARINGS ON THE CONTRIBUTION OF SATELLITE SERVICES TO THE GLOBAL INFORMATION INFRASTRUCTURE

WRITTEN TESTIMONY OF
IDB COMMUNICATIONS GROUP, INC.

Edward R. Cheramy, President

July 28, 1994

IDB Communications Group, Inc. ("IDB") appreciates the opportunity to testify today before the Subcommittee on Telecommunications and Finance in connection with its examination of how satellite-based technologies can contribute to the global information infrastructure. The Subcommittee seeks to "ensure[ ] a competitive satellite industry ...." IDB shares this goal.

The achievement of full and fair competition in the provision of international satellite services will require a fundamental restructuring of the Intelsat and Inmarsat satellite treaty organizations. Because of the multilateral nature of these organizations, however, this restructuring will take a long time to implement.

A critical first step for the U.S. government must be to change the role of Comsat, particularly Comsat's role in Inmarsat. The government can, and should, make the international satellite services marketplace more competitive by starting right here, at home, in the U.S., where the government has unilateral authority to rapidly implement appropriate

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changes in Comsat's role. These changes can, and must, be made before Inmarsat is restructured.

A. Background

IDB was founded in 1983, and has grown explosively over the past decade, primarily by taking advantage of market openings created by the break-up of the Bell System monopoly in 1984. Today, IDB employs approximately 800 people and expects revenue of approximately $450 million in 1994. IDB began as a provider of satellite transmission and distribution services for radio programming, and today, IDB is one of the leading providers of satellite transmission and distribution services for audio and video programming, both domestically and internationally.

In 1989, IDB began providing international data and voice transmission services. Today, IDB is the largest U.S. provider of international private lines, and the fourth largest U.S. provider of international switched voice telephone service (behind only AT&T, MCI and Sprint).

IDB is uniquely qualified to participate in this hearing.

- IDB is one of the largest purchasers of Intelsat services from Comsat.
- IDB is by far the largest purchaser of Inmarsat services from Comsat.
- IDB is the sixth largest user of the Inmarsat system.

Unlike the other participants in this hearing, IDB does not provide or seek to provide satellite services. Instead, IDB is one of the largest users of satellite services. For that reason, IDB favors the maximum possible competition in the provision of satellite services.

IDB would like to focus its testimony on Inmarsat, and in particular, on Comsat's role in Inmarsat. Inmarsat enjoys a de facto monopoly in the provision of international mobile satellite services. At present, and for the foreseeable future, Inmarsat will provide virtually all of the space segment required for the provision of international mobile satellite service. There are no viable separate satellite systems. Nor are there viable alternative transmission paths, like undersea cable. There are 28,000 Inmarsat terminals. If one wants to provide mobile satellite service to any of these terminals, one must use Inmarsat. If one wants to provide mobile satellite service from the U.S., one must purchase Inmarsat space segment from Comsat.

In September 1991, IDB became the first non-Inmarsat signatory in the world to provide facilities-based international mobile satellite services. IDB invested $35 million in land earth station facilities that operate with Inmarsat's Atlantic Ocean Region-East, Atlantic Ocean Region-West, and Pacific Ocean Region satellites. By 1993, IDB had become the sixth largest user of the Inmarsat system. Nonetheless, because IDB is not a signatory to Inmarsat, it cannot directly access Inmarsat space segment, invest in Inmarsat, vote on Inmarsat matters, participate in Inmarsat decision-making, or review Inmarsat planning documents.

Until IDB commenced service in 1991, Comsat was the only U.S. provider of Inmarsat services. The competition introduced by IDB had an immediate and dramatic effect on Comsat's pricing. For example, since the inception of maritime service in 1981, Comsat had charged AT&T and other U.S. interexchange carriers $9.17 per minute to complete a shore-to-ship telephone call. In late 1993, after finally gaining FCC approval to interconnect with AT&T in the face of a vigorous Comsat challenge, IDB introduced a shore-to-ship rate of $6.50 per minute. Comsat quickly reduced its rate to $6.75 per minute, a 26% reduction from its previous rate of $9.17 per minute. Comsat has offered similar reductions in rates for its ship-to-shore telephone service in the face of IDB's competition.

Without changes in Comsat's role in Inmarsat, it will be difficult for IDB to further reduce its rates to consumers. The reason is simple. IDB purchases all of its space segment from Comsat. IDB purchases this space segment from Comsat at a substantial mark-up above the Inmarsat space segment utilization charge (SSUC). For example, for Standard A peak service, IDB pays $5.36 per minute. The SSUC is $3.95. The mark-up is 35.7%. For off-peak Standard A service, IDB pays $2.55 per minute. The SSUC is $1.65 per minute. The mark-up is 54.5%.

IDB purchases space segment from Comsat pursuant to a May 1990 agreement where IDB committed to purchase 14 million minutes of space segment, on a take or pay basis, over a 5-year period. IDB made this enormous commitment before it had started construction of its facilities, before the FCC had approved any of IDB's applications and before IDB had lined up even one customer.

In order to get this agreement, IDB also had to agree, in writing, not to challenge Comsat for 5 years on many critical regulatory and legislative issues. For example:

- IDB could not seek direct access.
- IDB could not seek competitive access.
- IDB could not seek the structural separation of Comsat Mobile's jurisdictional and non-jurisdictional businesses.

- IDB agreed to support certain of Comsat's requests for regulatory relief.

- IDB agreed to be classified as a dominant carrier, and to remain classified as dominant until, and unless, Comsat were re-classified as non-dominant.

IDB had no choice but to accept these prohibitions on its ability to participate in the regulatory process. These terms (which are attached as Exhibit 1) were certainly not the product of a competitive marketplace. Clearly, only an entity with monopoly power could extract such conditions.

Comsat continues to this day to exercise its monopoly power. For example, effective January 1, 1994, Inmarsat extended its off-peak period from six to ten hours per day. It is now July, 1994 -- seven months later -- and Comsat has not extended to IDB the lower off-peak rates for these new off-peak hours. Thus, IDB continues to pay the peak rate of $5.36 per minute rather than the off-peak rate of $2.55 per minute for the four new hours of off-peak time. Obviously, IDB has little or no leverage over Comsat in negotiating rates. IDB cannot walk away and take its business elsewhere.

The cost of space segment is not an inconsequential matter. Such costs represents nearly 75% of IDB's cost of doing business. Since Comsat provides space segment to itself at cost, IDB is at a substantial cost disadvantage when competing with Comsat and with foreign Inmarsat service providers for retail customers.

B. Discussion

Comsat's exclusive access to Inmarsat space segment is an anachronism, a relic of the past when the government was concerned that private industry would not participate in the provision of mobile satellite service, and that such services had to be provided on a monopoly basis in order to be economically viable. Today, private industry, without any special privileges and indeed, in the face of special privileges still enjoyed by Comsat and Inmarsat, is an active participant in the provision of MSS.

IDB submits that Comsat's monopoly provision of Inmarsat space segment services can no longer be justified. In fact, it is directly contrary to the goal of competition set forth by Vice President Al Gore and FCC Chairman Reed Hundt as one of the guiding principles of the national and global information infrastructure. Chairman Hundt, in his speech to the World Telecommunications Development Conference in March, identified "competition instead of monopolies" as one of the key principles. According to Chairman Hundt, "competition increases innovation, reliable service, and economic growth. But competition must be fair. We aggressively seek in our domestic markets to eliminate cross-subsidies and discriminatory practices."

Comsat has recognized that dramatic changes have occurred in the international satellite marketplace. In response to these changes, Comsat has repeatedly called for the "privatization" of Intelsat and Inmarsat and for these organizations to voluntarily relinquish their "privileges and immunities." Unfortunately, these fundamental changes to Intelsat and Inmarsat are not going to be adopted and implemented for a long time.

The time has come for Comsat to relinquish its own substantial privileges. IDB once again invites Comsat to lead by example toward true privatization by relinquishing now any special privileges it might enjoy with respect to access to, and the provision of, Inmarsat services. It is disingenuous for Comsat to advocate that Inmarsat relinquish its special privileges if Comsat itself is not willing to relinquish its own special privileges. This change in Comsat's role must be made before, not after, the structural changes to Inmarsat are implemented.

If Comsat is unwilling voluntarily to relinquish its privileges, it is imperative that Congress repeal any and all special privileges accorded to Comsat under the International Maritime Satellite Act of 1978. For too long Comsat has been able to hide behind the murky legislative history of the Maritime Satellite Act to protect itself from fair competition.

At a minimum, Congress and/or the FCC must take the necessary steps to implement expeditiously alternative access arrangements -- such as direct access or competitive access -- in order to assure effective competition in the provision of Inmarsat services. Direct access would enable users to purchase space segment directly from Inmarsat. By eliminating the middleman (i.e. Comsat), the cost to the users of space segment would fall substantially. In turn, this would enable such users to compete more effectively with Comsat and with foreign Inmarsat service providers. The United Kingdom, Chile and Argentina already permit direct access to Intelsat. The United States, which should continue to be the worldwide leader in making telecommunications markets more competitive, is falling off the pace on the matter of alternative access and now lags behind other nations.

Competitive access is another option for alternative access to Inmarsat. Under competitive access, U.S. users would be able to purchase space segment from any Inmarsat signatory, not just Comsat. By introducing competition into the provision of space segment to non-signatory users, the cost of space segment would fall substantially. As with direct access, this decline in space segment costs would allow users like IDB to compete more effectively with Comsat by providing a more level playing field. The United Kingdom, France, Germany and the Netherlands already permit competitive access to the space segment services of Intelsat and Inmarsat.

IDB has carefully analyzed the Maritime Satellite Act and determined that the Act does not prohibit the FCC from implementing direct access or competitive access. Nonetheless, because the legislative history of the Act is somewhat murky, IDB submits that Congressional legislation amending the Act would give the FCC unquestionable authority to implement alternative access arrangements. IDB would be pleased to work with the Subcommittee to draft appropriate legislation.

* * *

Comsat's position today is quite similar to AT&T's position in the 1970's and early 1980's. AT&T enjoyed a monopoly in the provision of interstate and international telephone services. MCI and other carriers vigorously challenged the legal and economic justification for AT&T's monopoly. AT&T did everything in its power to delay the introduction of competition. Not coincidentally, AT&T raised many of the same arguments that are now relied on by Comsat to defend its antiquated monopoly. Ultimately, however, AT&T's markets were opened to full competition. The result was predictable: consumers benefitted from more choices, lower costs, better service, and faster introduction of new technologies. AT&T did not disappear; instead, it got more efficient and more productive, and, as a result, it was not only able to survive, but it grew and prospered.

The lesson of AT&T applies with equal force to Comsat. Full competition in the provision of Inmarsat services will lead to more choices, lower costs and better service. Comsat, like AT&T, is strong enough to survive without the protection of a monopoly. Indeed, IDB would expect Comsat not only to survive, but to grow and prosper in a fully competitive environment.

EXHIBIT 1

CONFIDENTIAL & PROPRIETARY

ARTICLE 3

REGULATORY MATTERS

3.1 Withdrawal in CC Docket 87-75: Immediately upon execution of this Agreement, IDB will file with the FCC a statement withdrawing its comments in CC Docket 87-75 insofar as those comments sought direct access to INMARSAT and the structural separation of COMSAT's INMARSAT-related space and ground segment activities, (but not insofar as those comments relate to the issue of the geographic scope of INMARSAT's aeronautical operations), and stating that IDB does not now seek (1) to obtain direct access to INMARSAT or (2) to bring about the structural separation of COMSAT's INMARSAT-related space and ground activities. IDB's statement shall be in the form set forth in Annex B hereto.

3.2 Clarification of IDB's Applications: Immediately upon execution of this Agreement, IDB will file with the FCC a clarification of the Applications acknowledging that it is a dominant carrier with respect to its international mobile communications business, and also acknowledging that COMSAT is the sole U.S. Signatory and operating entity for INMARSAT mobile services and stating that the carrier-to-carrier relationship between COMSAT and IDB will be consistent with the International Maritime Satellite Telecommunications Act of 1978. IDB's clarification shall be in the form set forth in Annex C hereto.

3.3 IDB Applications: COMSAT will not oppose or comment on, or aid or assist any other party in opposing or commenting on, the Applications.

3.4 Direct Access and Structural Separation: IDB will not seek or support, nor will it aid or assist any other party in seeking or supporting, any form of direct access to INMARSAT, or any change in COMSAT's role as U.S. Signatory and sole operating entity for INMARSAT, or any form of structural separation of COMSAT's INMARSAT-related space and ground segment activities, for at least the term of this Agreement. IDB's performance of this provision is of the essence of this Agreement.

3.5 Structural Relief: COMSAT currently anticipates that it will file a request with the FCC seeking relief from the structural separation requirements imposed on its mobile communications business in the COMSAT Structure proceeding (CC Docket 80-634) and in other FCC proceedings. If COMSAT does file such a request during the term of this Agreement, IDB will not challenge or oppose COMSAT's request, but upon written request from COMSAT will file comments on that request which affirmatively support accounting mechanisms as providing adequate regulatory safeguards for COMSAT's mobile communications business in lieu of structural safeguards. Further, IDB will continue to adhere to this position for at least the term of this Agreement. IDB's performance of this provision is of the essence of this Agreement.

3.6 Non-Dominant Status: If at any time during the term of this Agreement COMSAT seeks non-dominant status for any of its mobile communications ground segment services, COMSAT will provide IDB with at least forty-five (45) days notice before filing any FCC documents seeking such non-dominant status. IDB will not seek non-dominant status for any part of its INMARSAT mobile communications business unless it receives such a notice from COMSAT, and then only to the extent sought by COMSAT. In any request for non-dominant status with respect to INMARSAT mobile communications filed by either party, such request will ask the FCC to condition grant of the request upon grant of equivalent non-dominant status to the other party. This provision is of the essence of this Agreement.

Mr. MARKEY. How do you feel about granting direct access to INTELSAT and INMARSAT to protect against potentially anti-competitive behavior? Argentina, Chile, other countries in the world are now taking that approach; how do you feel about it, Ms. McCann?

Ms. MCCANN. With respect to the circumstances you just described, I believe those were private contractual arrangements between IDB and COMSAT. We never had a chance to review those provisions. I understand that my friends at the FCC are working to alleviate the hardships of some of those provisions.

On the direct access issue in the United States, the State Department regards that principally as a domestic regulatory matter.

Mr. MARKEY. Let me move over to the Chairman of the Federal Communications Commission and get his sense of how the accusations made by Mr. Cheramy can be dealt with or if they need to be dealt with.

Mr. HUNDT. Number one, I think your point about access is something that we should consider. Number two, I have been informed that Mr. Cheramy's story is a true story but a corrected story: That those provisions in fact have been removed through the efforts of people at the FCC. This doesn't mean that we should be deaf to the point. We should not require a company to go through this kind of experience and then have to in a variety of ways correct after the fact.

Mr. MARKEY. I mean, part of the problem is that, as you know, in many instances we wind up with post-MOU's vindication of a company. So the fact that they still exist is proof that in this particular instance the FCC was able to give them some protections, but it was on an ongoing basis, in an ad hoc process.

We are talking about something that is more formalized and something that all companies could rely upon as a set of ground rules. It just seems to me, to those of us who have been through the whole battle of ensuring that MCI and Sprint and hundreds of other small long distance companies were not regulated as dominant carriers and were not put in disadvantageous circumstances because of their smaller and later arrival into the marketplace, that you should see an equivalent situation here with many of the companies, not those necessarily even in the second panel but dozens of others that might be out there, thinking about taking the risk of getting into this business without any assurance or guarantee that they would be able to make it through the very difficult set of obstacles that could be constructed in their path.

Mr. Irving.

Mr. IRVING. We will be happy to take a look at the direct access question. I think in particular we have extraordinarily good relationships with Argentina, Chile, and the United Kingdom. I would love to talk to our colleagues in those countries and see what their experience has been.

We would like to think that we are in the forefront of liberalization of the telecommunication marketplace, but I have acknowledged that the UK and Argentina and Chile are among the most aggressive in trying to liberalize their markets. We will undertake to try to find out what their experience has been and see if it has some applications domestically.

Mr. MARKEY. Any other questions?

Mr. FIELDS. Just very briefly, Mr. Chairman.

It seems to me that this discussion the chairman just had underscores the reason to move as quickly as possible to a decision on privatization. And in listening to the comments of the chairman, so much of this was echoed in our discussion about opening the local loop and long distance competition, the debates that we had just recently.

Of course, the twist here is that you are also dealing with other countries, and it would be nice we would deal with this in a vacuum. We can't. But it does seem that the process needs to move forward and that our country should take a leadership role. And I think the quicker the decision is made and we begin exercising that leadership on a global front, the better off all companies are in a competitive model.

Mr. MARKEY. Do other members seek recognition?

That completes this first panel.

And again, we thank you all so much for coming here today. And we really do want to work with you on this issue so that we can complete the full package and ensure that the Vice President's global vision is implemented.

Thank you all very, very much.

Now, let's move to our second panel, if we could, and we have to move in a few more chairs.

The committee will come to order.

We have a very distinguished second panel. It consists of five prominent corporations involved in satellite services. All of these companies will play a major role in the development of the global information infrastructure.

Mr. Christopher Galvin is the President and COO of Motorola, Motorola has already raised $800 million to build its IRIDIUM system, a global network of 66 satellites that will offer worldwide voice-data-fax and paging services and which hopes to provide pocket telephone service anywhere in the world by 1998.

Mr. Bernard Schwartz is the chairman and CEO of the Loral Corporation, the Loral Corporation is a high technology company that has done a majority of its business in the defense electronics sector but has already turned its 30 years of experience in the satellite communications business to more commercial objectives. The Loral Corporation has raised $275 million towards its plans for Globalstar, a $1.8 billion system that will have 48 low-orbit satellites, and provide worldwide voice-data-fax and paging services by 1998.

Loral has also supplied satellite systems for a number of other companies and is currently involved in the construction of new revolutionary series of satellites for INTELSAT. This is Mr. Schwartz's first appearance before the subcommittee and we welcome him.

Mr. Rene Anselmo testified at last year's hearings and on several other occasions before this subcommittee on these issues and others like them. Mr. Anselmo is the chairman of PanAmSat, the first company to launch a private international satellite system to compete with INTELSAT. PanAmSat has prospered through the provision of television services to the United States, Latin America, and

Europe. And it recently launched its second satellite and now has planned to launch three more satellites and to expand coverage to Asia, Africa and the Indian Ocean region.

Mr. Bruce Crockett is the CEO of COMSAT. He is also back after appearing a number of times before this subcommittee. Mr. Crockett's company is a congressionally chartered private corporation that was designed in 1962 to help establish the first international satellite system.

The debate in 1962 was whether AT&T should have responsibility for that new international service or whether it should be put into a separate congressionally chartered private corporation. The decision was made to move in that direction and Mr. Crockett here represents the historical product of that decision by Congress.

COMSAT is now faced with some very interesting questions as we address the future of satellite communications and the issue of privatization of INTELSAT and the other international satellite organization, INMARSAT.

And Mr. Russell Daggatt is the President of the Teledesic Corporation. Teledesic has an ambitious $9 billion plan to launch 840 communication satellites for high-speed data and video services to the planet by the year 2001.

Let us begin with you, Mr. Galvin.

I would ask each of you to keep your opening statements to 5 minutes. Let me stop and recognize the gentleman from Illinois.

Mr. HASTERT. I would like to welcome my constituent, Mr. Galvin, from Illinois, and we are happy to have him here today. Thank you, sir.

Mr. MARKEY. Anybody else to welcome anybody else?

I want to welcome Mr. Anselmo. He grew up in Medford, Massachusetts, but he is now a resident of the world and has long forgotten, I am sure. But we welcome you.

Mr. Galvin, whenever you feel comfortable, please begin.

STATEMENT OF CHRIS GALVIN, PRESIDENT, MOTOROLA, INC.; BERNARD L. SCHWARTZ, CHAIRMAN, LORAL CORP.; BRUCE L. CROCKETT, PRESIDENT, COMSAT CORP.; RENE ANSELMO, CHAIRMAN, PANAMSAT; AND W. RUSSELL DAGGATT, PRESIDENT, TELEDESIC CORP.

Mr. GALVIN. Thank you, Mr. Chairman. And thank you, Congressman, for the nice welcome.

On the 25th anniversary of our landing on the moon, I will only note that Motorola had the good fortune of founding the automotive entertainment electronics industry when we put the first radios in cars, and we had the great fortune of putting the first radio in the first car on the moon, and so today we are standing on the threshold of perhaps creating a new industry, that is the mobile personal telecommunications business. These are very important hearings and we thank you for the opportunity to be here.

In our view, nothing could be more timely or urgent than this hearing today. Motorola and its industrial partners and competitors in the field of mobile satellite services have embarked on projects that will further reshape the telecommunications landscape. Billions of dollars of investments and tens of thousands of jobs in this country's global leadership are riding on our government's ability to handle the issues that are raised here today.

Satellites have a crucial role in the global information infrastructure and realizing its full potential. The union of satellites and wireless was the linchpin of the development of our IRIDIUM system, and by interconnecting a network of 63 satellites, locating them in low-earth orbit, and using globally consistent spectrum allocation, the IRIDIUM will offer a reliable voice and data system using pocket-sized handsets any place on the earth.

The work on IRIDIUM system is under way. It is demonstrated by the videotape shown here this morning. And I only note, isn't it fascinating we can sit here and talk about billions of dollars of investment in sophisticated systems, and we have difficulty putting on a videotape.

Mr. MARKEY. A congressional expert is only an expert compared to other Congressmen.

Mr. GALVIN. In addition to the hundreds of millions of Motorola and other IRIDIUM investors and the millions of dollars that have been spent in developing the system, to the aerospace and defense concerns, including Raytheon and Lockheed and McDonnell Douglas, this has been a major investment and the project has created and preserved thousands of high-tech jobs and tens of thousands more in the coming years. And a note which may be of interest to this committee, that IRIDIUM is pumping commercial dollars, private sector funds, into the defense conversion process.

Unfortunately, none of these benefits can or will happen without proper regulatory environment. A project of this size and scope requires that financing development and regulatory approvals all run in parallel to get us to the marketplace on time. The financing and research and development activities are on schedule so far. But only delays in the regulatory process face us.

We believe that the FCC is committed to seeing Big LEO systems realized in the marketplace and the chairman's written testimony reflects the importance of LEO swift action.

Unfortunately, the FCC has not yet completed its rulemaking and delays of licenses is evident. Coupling with the FCC's staff recent decision to defer our request for a 319(d) construction waiver, the FCC has effectively left us unable to continue as planned.

This has already caused expensive delays and has raised the prospect of even more serious disruptions in the future. Each day that passes means higher costs for the project, higher costs translate into higher costs for consumers, and they also could risk and lose jobs. The Motorola, Lockheed and Raytheon, Sprint and other IRIDIUM investors are prepared to spend their own money for construction at their risk, just as we have spent hundreds of millions of dollars on the development, and we stand in the situation where the government is telling us that we are unable to issue orders right now to different contractors to maintain the defense conversion process, effectively we cannot do that.

In contrast, that situation is one that is not facing our competitors abroad. While Motorola is prohibited from moving forward without an FCC waiver or license, our foreign competition has no such restrictions. If we had chosen to go offshore for licensing IRIDIUM, we would be free to proceed at this time.

Instead IRIDIUM and other ambitious U.S. projects are disadvantaged by eight regulatory systems and by being perhaps the source of U.S. jobs is at stake. Make no mistake, if U.S. companies are hamstrung by attempts to spearhead the production of these global systems, competitors are ready to jump in. This is true. The time has come for the FCC to act on the Big LEO.

The chairman has made a commitment, as he stated here today, to issue a report and order by October 15th and license by January 31st. And this is very helpful. It is absolutely critical that the FCC adopt and adhere to a firm schedule of fixed dates for concluding the rulemaking and the licensing proceeding.

In addition, and I underscore "in addition," the staff has said, the FCC staff has said that waivers will be deferred until the FCC has adopted a band sharing plan. Our legal staff believes that the FCC can grant waivers in the interim while the plan is being adapted and therefore we ask that they prepare to make such construction schedules and the waiver available.

We appreciate the fact that you, Mr. Chairman, and the Senate have gone on record underscoring the swift need for action in the FCC and we appreciate the letter by Congressman Hastert that will be put forth. In addition to your request for an expedited licensing schedule, the Senate has mandated a final report and order and rulemaking proceeding by October 15th of this year and licenses granted by the January 31st of next year. And we hope that waivers will be acted upon in the interim.

We believe that an even more aggressive schedule is achievable and these dates were developed though with the FCC input. And if we couple these dates with perhaps action on 319 waiver, we think this can be acceptable.

To address the longer-term issue of the processing, we want you to consider amending the law to eliminate the section 319 construction permit requirement for global systems. These systems must operate in a global context, not in the domestic context here in the United States, as contemplated by the 1934 Communications Act.

In my view, the waiver of process has proven to be uncertain and inappropriate in the global competitive context. Lifting the 319 rule would significantly reduce the amount of time needed to bring systems to market and permit applicants to spend their own money on correction at their risk, using the market system, when, and as their plans in the market require, as they do now with the market research and development.

In conclusion, Mr. Chairman, the global wireless revolution is well underway. IRIDIUM and other satellite-based systems will help us to manage information and communicate on our terms rather than been limited by geography. We have the technology and wherewithal to take it happen.

Our government can help by removing the regulatory roadblocks to investment and innovation and by working with foreign governments to open markets and spur competitive opportunities. America is preeminent, as stated by those on the committee, in this field of telecommunications and services and it is a great source of jobs and adds to our international prestige. Our looming entry into this new area has great potential for leadership in the 21st Century and will assist significantly with the defense conversion process.

I refer you to my written testimony and the issues that have been raised, and I would ask that my testimony be made a part of the record along with the letters from Raytheon and Lockheed amplifying what we have been talking about today.

Thank you, Mr. Chairman.

Mr. MARKEY. Thank you, Mr. Galvin, very much.

[Testimony resumes on p. 101.]

[The prepared statement and attachments of Mr. Galvin follow:]

Statement of Christopher Galvin
President and Chief Operating Officer
Motorola
House Subcommittee on Telecommunications and Finance
July 28, 1994

Mr. Chairman, I want to thank you for the opportunity to appear before you this morning to discuss the role of satellite-based systems in the Global Information Infrastructure -- and what industry and government can and should be doing to accelerate and assure the delivery of myriad new benefits to people around the world.

As you know, the U.S. is in a period of rapid technological advancement and fierce international competition. Together, these powerful forces are reshaping the political landscape and global economy, and confronting us with challenges as well as opportunities. Our national response will determine whether the promises of the information age will be truly realized and whether we will sustain -- and hopefully expand -- our historic global leadership position well into the next century.

Motorola clearly understands the stakes, and we have had some success at meeting global market competition. That success and the tremendous Motorola team effort needed to develop equipment in such a dynamic field give us a solid base of experience and insight to address the issues you have raised.

Motorola believes that wireless communication technology will play a vital role in the evolution of the Global Information Infrastructure and in continued U.S. technological leadership. Communications policy should be developed with this fact in mind.

Too often, the emerging GII seems to be portrayed as a wireline equivalent of the nation's highway or rail system. But just as aircraft shortened distances and created vast efficiencies for businesses no longer tied only to ground transport, wireless communication and information systems will free people of the physical constraints of wire-only networks and will spawn vast new opportunities in reach and function. In every consideration of what the GII will look like, how it will operate and the benefits it will deliver, including universal access, wireless technology is likely to play a key role.

THE WIRELESS REVOLUTION

Based on market sales and penetration rates, the global wireless revolution has already begun. The global workforce is on the move. People do not want to choose between mobility and communication, and wireless services offer the communications access and quality they require. In addition, wireless systems can supplement limited existing wireline services and in still other situations, wireless systems create communications capability where none previously existed. The capability of wireless systems is growing at lightning speed and will soon deliver a broad spectrum of digital personal communications and information services, including voice, data, graphics and imaging.

From business to education to public safety, and among a fast-growing segment of the consumer market, wireless communication systems are already in place and proving their value. The expanded functionality and smaller equipment of tomorrow's systems will permit us to integrate fully into our daily lives a full array of wireless services from paging to e-mail -- at any time, virtually anywhere in the world.

SATELLITES AND THE GII

Satellites have a central role in realizing the full, global potential of wireless technology. The union of satellites and wireless was the linchpin in our development of the IRIDIUM® System. By interconnecting a network of 66 satellites, locating them in low Earth orbit and using a globally consistent spectrum allocation, the IRIDIUM system will offer reliable voice and data communication using pocket-sized handsets to any place on Earth.

As Vice President Gore observed in Buenos Aires: "[W]e now have at hand the technological breakthroughs and economic means to bring all the communities of the world together. We can at last create a planetary information network that transmits messages and images with the speed of light from the largest city to the smallest village on every continent." When the IRIDIUM system is operational -- and we still hope to maintain our target date of 1998 -- we expect to be the first to offer the ubiquity envisioned by the Vice President coupled with the convenience and mobility of pocket-sized phones. IRIDIUM system's ubiquity would not be possible without a low Earth orbiting satellite network. Because of the vigorous U.S. satellite and launch industry, the IRIDIUM system can rely on U.S. sources to a great extent in developing this low Earth orbiting network .

Companies such as Raytheon, McDonnell Douglas and Lockheed are important investors and contractors for the IRIDIUM project. Motorola has spent hundreds of millions of dollars to develop this technically complex system. Coupled with current and planned international financing for the project, billions of dollars in contract awards have been let to U.S. industrial, aerospace and defense concerns. These awards have already created or preserved thousands of high tech jobs, and tens of thousands are projected over the next few years. Among the substantial benefits, Raytheon Corporation has been awarded a contract totaling over $300 million for development of the satellite main mission antenna -- the communication link with subscriber equipment on the ground. Lockheed has a $700 million contract for construction of up to 125 satellite buses, solar arrays and propellant subsystems. These two awards represent the largest commercial contracts ever obtained by either company. A third mainstay of the U.S. aerospace industry, McDonnell Douglas, will play a major part in launching the satellite constellation into space.

In addition to technological development and job creation, the IRIDIUM project is helping to advance another critical national goal, namely the opportunity for aerospace and defense firms to diversify into promising commercial fields, and it is using private sector funds. In sum, the IRIDIUM system will bring us closer to the evolving GII while serving as a source of sustained global leadership, defense conversion, job creation and future technological development.

REGULATORY/POLICY CONSIDERATIONS

The IRIDIUM experience demonstrates that the private sector can and should bear ultimate responsibility for developing and marketing new communication technologies, products and services. The government, in turn, should support private sector initiatives and ensure that the public interest is being served. Government also has an important role in the development of the GII as a negotiator, using its leverage to eliminate foreign barriers to U.S.

market entry and fair competition, including access to spectrum and to licenses needed to operate in other countries.

At home, the time is ripe to reexamine how effectively and efficiently current rules and procedures are being implemented, and where these processes can be streamlined and shortened. The case of the low Earth orbiting (LEO) satellite systems illustrates how regulatory obstacles and delays can threaten U.S. leadership and competitiveness in the global marketplace.

As private sector initiatives become global, as illustrated by the LEO systems, the U.S. regulatory policy needs to recognize the implications for U.S. competitiveness inherent in this important shift from local to global markets and systems. In the past, delays in granting U.S. licenses affected all competitors equally because services were offered only in the U.S. In a global environment, U.S. licensing delays keep U.S. companies at the starting gate while other countries issue licenses to their constituent systems more rapidly. In addition, other countries' constituent systems may not require any prior authorization before they can proceed with construction activities.

By contrast, under U.S. law (specifically Section 319 of the Communications Act of 1934, as amended) a system proponent, including LEO systems, must receive a construction permit or a waiver of this requirement (a so-called section 319(d) waiver) before proceeding to the construction phase of its project. The complexity and delays in the U.S. process and the difficulty of maintaining the development of complex systems because of Section 319 puts U.S. companies at a disadvantage in the provision of global services. As global competition intensifies, our domestic processes threaten our leadership in these crucial areas and, in turn, threatens future growth of the U.S. economy.

Make no mistake: if U.S. companies are hamstrung in their attempts to spearhead the construction of the "information skyway," our competitors abroad are far better prepared than in years past to wrest away the mantle of global technological leadership. The potential benefits from these technologies are enormous and the consequences of inaction in this area are far-reaching.

The Big-LEO satellite proceeding at the FCC highlights the problems we face, the need to address the immediate problem of timely licensing of U.S. LEO systems and the need to develop a new regulatory approach for global systems to avoid these problems in the future.

Almost four years have passed since the first application for Big LEO mobile satellite service was filed at the FCC. More than 2 years have passed since the 1992 World Administrative Radio Conference (WARC) approved a global spectrum allocation for satellite services. Since that time, the Commission has sponsored a negotiated rulemaking proceeding in an attempt to obtain a consensus among all the parties. However, while a band sharing plan was proposed over six months ago and permits all parties to proceed, it has been clear since then that further negotiations would not resolve all differences between the parties. For one thing, not all of the applicants have an equal sense of urgency or incentive to come to an agreement.

The time has come for the FCC to take action, and to recognize the serious harm being caused by further delay. Two of the applicants have raised more than $1 billion in equity commitments from investors worldwide to fund construction of their respective satellite systems, funding based in part on construction and launch schedules which are now in jeopardy. In the case of the IRIDIUM system, contracts have been awarded, work which can be commenced is well underway, and a solid base of subcontractors, suppliers and investors is in place.

However, because Section 319 precludes "construction" without a license or a waiver and because of FCC licensing delays, Motorola and a second consortium led by Loral/Qualcomm cannot proceed with construction of long lead time components. Waivers of Section 319 (d) were sought in order to maintain our construction schedules. Motorola's waiver request was filed in December, 1993, but to date, the Commission has failed to act on that waiver request. In fact, Commission staff recently indicated action on these two waiver requests would be deferred until a Commission decision has been made in the rulemaking proceeding or a consensus of all the applicants has been reached. While staff suggested they would recommend "expeditious" handling of the rulemaking, no date or timeframe was offered. This position is unacceptable. It seriously jeopardizes our schedules, and it is already costing Motorola, IRIDIUM system investors and contractors millions of dollars in delay costs.

The importance of this interim construction approval while awaiting ultimate licensing cannot be overstated. Absent the timely grant of the Section 319(d) waiver, licenses must be issued immediately. Financing, regulatory approval and system construction must progress simultaneously, on parallel tracks. Uncertainty in any one area negatively impacts the others. Failure to maintain the construction schedule adversely impacts efforts to attract additional financing. Investors and lenders alike are looking for reasonable assurance that licenses will be granted in a timely fashion. The absence of a license and the effective denial of Motorola's Section 319(d) waiver request have already added substantially to system costs. Further delay will compound the financial and competitive harm, trigger lay offs, and postpone provision of service to the public. At some point, these delays could jeopardize the entire project.

To mitigate these negative consequences, the Commission must complete its Big LEO rulemaking proceeding quickly, then proceed immediately to grant Section 319(d) waivers pending the final and prompt licensing of systems.

We appreciate your recent initiative, Mr. Chairman. By requesting from the Commission a schedule for licensing Big LEO systems, it is clear that you well understand the need for swift action. In addition, recent Senate action included a mandate for issuance of a Report and Order in the rulemaking proceeding by October 15, 1994, and the grant of licenses by January 31, 1995. While we believe that an even more aggressive schedule is reasonable and achievable, we appreciate that the Senate, like you, Mr. Chairman, has recognized -- and underscored -- the importance of maintaining a firm schedule. Coupled with appropriate waivers, we believe we can work within the Senate timeframe.

Your intervention and that of others is likely to solve the Big LEO proceeding problem, but the process problem remains. We recommend that you consider amending the 1934 Act to eliminate the Section 319 construction permit requirement for global systems. In these cases, the marketplace is not the U.S. It is the world, and how we deal with U.S. applicants must be viewed in this global context, not in the domestic context contemplated by the Act when it was written in 1934. This change will significantly reduce the amount of time needed to bring such systems to the market. It will allow applicants, at their own risk, to proceed with construction activities, as they now can do with research and development, while awaiting U.S. licenses.

U.S. PREPARATION FOR ITU MEETINGS

On another front, Mr. Chairman, you have solicited our assessment of the current coordination process for developing U.S. policy for international satellite organizations and WARCs. I am pleased to give you our view.

In today's increasingly global telecommunication environment, decisions reached and issues raised at WARCs, Plenipotentiaries, and other international conferences take on greater significance for U.S. interests. The spectrum allocation and standards decisions reached at these conferences now impact U.S. companies in the U.S., in Region II (North and South America) and around the world.

These conferences are occuring with greater frequency. They are more complex -- both technically and politically -- and they, therefore, require far more preparation and expertise than we have mustered in the past.

Our experience with the 800 MHz issues in the 1970's illustrates this point. A critical delay in the issuance of U.S. cellular licenses gave foreign manufacturers time to develop equipment lines, effectively catching up with U.S. manufacturers. However, on the system side, the U.S. was still the first country to introduce cellular service. Our successful experience with cellular service was recognized around the world and paved the way at the 1979 WARC for widespread support when the U.S. proposed extensive 800 MHz allocations for wireless services. In essence, we succeeded in spite of ourselves.

Today, we cannot expect to have the same luck. Technology transfers at such a rapid pace that we are not likely again to enjoy that long a lead time. Nor is it likely that a technology focused solely on a domestic need will enjoy widespread global acceptance. Technology designed to serve a domestic market now has little chance to succeed globally. Additionally, the U.S. cannot afford to continue to rely just on its reputation as a technology leader.

Despite the obvious need for more aggressive governmental preparation, we remain narrowly focused and poorly prepared. The 1992 WARC is case in point. Early in the preparatory process, the U.S. government resisted preparation altogether -- probably because most of the spectrum to be considered for allocation at the conference was, in the U.S., under the control of the government. Because of government antipathy, the U.S. was not prepared politically or substantively as the conference was upon us. We had not developed solid positions, and we had not formed international alliances.

Eventually, the U.S. did take a position recommending 1610-1626.5 MHz for mobile satellite service, and that position was adopted at the conference. The U.S. delegation was able to overcome strong European resistance only because of support from Africa and other developing regions that concluded, after frantic efforts by the U.S. delegation at the conference, that mobile satellite services would further their development goals.

Our success at the '92 WARC should not obscure the fact that the U.S. was poorly prepared. The lessons learned are that we must begin preparations early. Differences between the interests of the government and the private sector must be exposed and resolved quickly. We must name our delegation well ahead of the conference, ensuring it includes needed expertise. We must identify the global political and economic implications inherent in any proposed spectrum allocation. That vetting process would be enhanced by the availability of more information about U.S. government positions, and the government's actual spectrum usage.

Federal budget constraints will require the government to rely even more heavily on the private sector in the future to prepare for these conferences, provide expertise, and promote U.S. objectives. To that end, we should begin now to forge a workable and effective partnership for the advancement of U.S. interests.

INMARSAT

During the year that has elapsed since Motorola testified before this Subcommittee on the unfair advantages INMARSAT would have over private companies in hand-held mobile satellite services, there have been welcome changes. However, more needs to be done, and continued involvement by the U.S. government is necessary.

When Durrell Hillis, head of Motorola Satellite Communications, appeared before you last year, INMARSAT had taken no steps to privatize. In fact, it was asserting that its quasi-governmental status, providing a virtual monopoly over maritime and aeronautical satellite communications, should be extended to land mobile satellite services, where it would retain its protected status while competing against commercial enterprises. U.S. law limits Comsat's role in INMARSAT to maritime and related activities. Accordingly, we filed a Petition for Declaratory Ruling with the FCC late last year seeking affirmation that U.S. law does not allow COMSAT, as the U.S. designated representative to INMARSAT, to provide other than maritime and aeronautical satellite services.

As a private company, Motorola is accustomed to and expects competition. We believe in a competitive marketplace. It responds to the needs of the customer. We only ask that the competition be fair. The proposed INMARSAT expansion would have been far from a fair marketplace. Specifically, it raised several serious concerns:

1) It could take revenues from its monopoly services to cross-subsidize its hand-held land mobile operations, placing private companies at a distinct competitive disadvantage.

2) Because most INMARSAT signatories are governmental entities and control access to their local markets, they would have the incentive and the ability to deny access to private companies such as IRIDIUM.

3) Under current practices, INMARSAT has preferred access to spectrum, while private companies must apply for spectrum and compete against other private interests. Nor does INMARSAT need an operating license, while IRIDIUM and the other LEO applicants must obtain such a license, the grant of which is often under the control of an INMARSAT signatory.

4) Finally, its quasi-governmental status confers privileges and immunities on INMARSAT, a unique advantage over U.S. companies.

The solution seems clear: a new entity should be established to serve the hand-held mobile market. Though INMARSAT signatories should be permitted to invest in this separate venture ("NEWCO"), that entity should have separate funding and no preferred status. It should not inherit INMARSAT's existing spectrum or its claim to new spectrum. Rather, NEWCO would compete for spectrum as a private entity with the same standing as other applicants. In addition, the U.S. government must assist private entities in obtaining market access abroad, for example by requiring reciprocity as the price for allowing NEWCO to compete in the U.S. market.

Our position has been -- and continues to be -- that the emerging hand-held mobile satellite services industry should be created by private interests on a level competitive playing field. In the case of INMARSAT, that means a private entity.

With that background, Mr. Chairman, let me address INMARSAT's recently announced plan to establish an affiliate to provide hand-held personal communications via satellite.

That plan represents progress. The fact that the affiliate is not identical to INMARSAT and would not enjoy INMARSAT's current privileges and immunities are welcome changes. However, the affiliate still:

(1) would be owned up to 85 percent by INMARSAT and its owners;

(2) would use the INMARSAT name and logo;

(3) would contract out to INMARSAT for a wide range of activities, including: management services, system definition for INMARSAT-P, spectrum and standards support, acquisition of space segment and ground segment infrastructure, and even system operation services; and

(4) apparently would attempt to inherit ITU spectrum filings made on behalf of INMARSAT.

In addition, the affiliate plan does not address market access by other systems. Because the affiliate would not truly be separate from INMARSAT, its owners would continue to have the incentive and ability to erect barriers to entry for private U.S. competitors in at least 65 different countries. Further, the INMARSAT signatories would have the incentive and ability to cross-subsidize development of the affiliate with revenues extracted from INMARSAT's captive maritime monopoly customers. Finally, if the affiliate were to be allowed to assume INMARSAT's ITU filings, it may have access to at least 60 MHz of valuable spectrum in the 2 GHz band and additional spectrum for feeder links - far more than any private LEO systems.

I urge continued efforts to achieve complete separation of the new entity. We have amplified our view in greater detail in FCC filings and in various requests for instructions. We would be happy to submit any and all of these documents to the Subcommittee for its information.

In addition to policies concerning the new entity, the government must take a more active role in its instructional process for COMSAT. Too often, COMSAT has proceeded to INMARSAT meetings without the guidance of government policymakers on such important matters as the development of this handheld system. For example, when Motorola proposed that certain instructions be given to COMSAT in connection with an impending INMARSAT Council meeting, we were advised that the government did not even have an agenda for the INMARSAT meeting so that no assurances could be offered that the request would be relayed. The U.S. government is entitled to these agendas and must ensure that they are received with sufficient time to instruct COMSAT.

CONCLUSION

However fast or wide its lanes may seem, an information highway paved with wire, cable and fiber remains locked to the limitations of a two-dimensional world -- its full use dependent on being in the right place at the right time.

By choice or necessity, whether on the run or off the beaten path, access by many to tomorrow's world of information on demand will be provided by wireless technology

With dazzling speed, wireless systems are freeing us from traditional constraints. The IRIDIUM system and other satellite-based systems will break those bonds once and for all, enabling us to manage information and communicate on our own terms, rather than those dictated by geographic or economic limitations wherever we are in the world. We have the technology and the wherewithal to make that happen. We are working hard -- right now -- to do so. But to succeed, and to blaze a trail for others, we need an enlightened national policy that not only encourages competition, but fosters an environment that enables companies to raise the capital -- and take the risks -- needed to compete. Our government can help by removing regulatory roadblocks to investment and innovation, and by cooperating with foreign governments to open markets, spur competition and work toward the goal of a global dial tone.

That is one of the main challenges I mentioned at the outset of this presentation. With IRIDIUM and other LEO systems, we are creating an entirely new industry. IRIDIUM alone has produced some 4,000 new jobs to date and is projected to produce tens of thousands more in the years ahead, many of them in the defense and aerospace sector. That is good news for our industrial partners, like Lockheed, Raytheon and McDonnell Douglas, it is good news for the U.S. economy and it is good news for the nation as a whole.

America has a pre-eminent position in the field of telecommunications technology and services -- a source of good jobs and international prestige. Our looming entry into the new area of mobile satellite services gives us the chance to expand that mutually beneficial leadership well into the 21st century.

Lockheed Missiles & Space Company, Inc.

Sunnyvale, California 94088-3504 (408) 743-7743

M S Araki
Executive Vice President

July 27, 1994

The Honorable Edward J. Markey
Chairman, Subcommittee on Telecommunications
and Finance
United States House of Representatives
2133 Rayburn House Office Building
Washington, DC 20515

Dear Mr. Chairman:

I want to commend you on your leadership in holding Thursday's oversight hearing on the Global Information Infrastructure ("GII"). I request that this letter be included in the record for that hearing.

Developing and deploying mobile satellite systems for the commercial applications envisioned by the GII is of critical importance to the future of the U.S. aerospace industry. For us to capitalize on the opportunity these systems present, the Federal Communications Commission ("FCC") must complete action on its Low Earth Orbit (Big "LEO") proceeding as soon as possible.

As you are aware, many U.S. aerospace and defense companies have been hard hit by cutbacks in defense spending in the last several years. To offset the erosion in its government business base, Lockheed has actively sought new commercial business opportunities that draw on its core skill base and competencies.

We have moved in this direction with the encouragement of the U.S. government. There was, and continues to be, concern at all levels of government that the skills critical to the maintenance of the U.S. defense industrial base will be lost if the industry is unable to succeed in converting a portion of its capacity to commercial production.

The IRIDIUM® system represents just such an opportunity to Lockheed. We are transferring skills we developed in the production of government satellites to this innovative commercial communications satellite project, one that enables us to retain jobs and a skill base over many years that otherwise would have been lost.

We have been very concerned about the amount of time it has taken the FCC to act upon license applications for LEO mobile satellite systems. Further delays in granting a construction permit waiver and a license for the IRIDIUM® system will have a particularly adverse impact on Lockheed and its subtier personnel. More important, continued delays send the wrong signal to the aerospace industry about the government's ability to support its policy on defense conversion. That, of course, serves neither government's nor industry's interests.

I urge you to call for quick action by the FCC in the Big LEO proceeding. Expeditious conclusion of Big LEO licensing will enhance our competitive position in international markets for mobile satellite communications technologies while providing real commercial opportunities for defense conversion and creating high-tech, high-wage jobs here at home.

Sincerely,

M. S. Araki

Raytheon

July 27, 1994

Honorable Edward J. Markey
Chairman Subcommittee on
Telecommunication and Finance
316 Ford House Office Building
Washington, DC 20515

Dear Mr. Chairman:

Raytheon wishes to formally support the expeditious licensing of U.S. Big LEO systems and Motorola's request for a Section 319-D waiver from the Federal Communications Commission for their Iridium® telecommunications satellite network. We urge Congress to encourage the FCC to grant licenses for these systems which are vitally important to world telecommunications and American industry.

The Iridium® system will provide a worldwide communications network that will allow the provision of voice, data, paging and facsimile services between any two points on the globe. It addresses the incompatibility between existing cellular systems and assures communications around the world. Raytheon invested in the Iridium® system premised on our belief in the concept, its economic viability, and Motorola's leadership in this arena and their substantial investment.

The Iridium® system also provides critically needed jobs for American companies like Raytheon. As a supplier to Motorola, we are producing the main mission communication antennas for the Iridium® satellites. These sophisticated antennas provide the electronic links from a satellite to ground users who communicate with a hand-held telephone comparable in size to today's cellular phones. These antennas represent the latest technology derived from our military experience and investments in gallium arsenide (GaAs) micro-electronics. This is a significant example of our efforts to diversify from defense programs into commercial applications that allow us to maintain skilled engineering and manufacturing jobs in the face of declining military budgets. We cannot afford to lose or delay these commercial successes that are already a challenge to create. Licensing delays will mean more lost jobs for the already hard hit defense industry.

We have been working with Motorola on this program since early 1991. We are completing production of the initial engineering model and have initiated production of five satellites that will be deployed in mid-1996 under an FCC experimental license. Subject to obtaining any necessary FCC authorization, we are scheduled to begin production of an additional 75 main mission antennas for delivery beginning in April 1996.

The Iridium® program will provide more than 750 man-years to Raytheon over the next ten years. As noted, these are skilled engineering and manufacturing positions.

Further delays in the granting of an FCC license and appropriate waiver to Motorola will translate to lost jobs and delay in bringing this new technology to the world markets.

Sincerely,

RAYTHEON COMPANY

Jack R. Kelble

Jack R. Kelble
Assistant General Manager
Programs

Mr. MARKEY. Now, we will hear from Mr. Bernard Schwartz. We welcome you.

STATEMENT OF BERNARD L. SCHWARTZ

Mr. SCHWARTZ. Thank you very much. Good morning.

I am chairman and chief executive officer of Loral Corporation, and I want to thank the Chairman, Mr. Markey, and the ranking member, Mr. Fields and all the other members of the subcommittee for the opportunity to testify on global information infrastructure.

This is my first appearance before the subcommittee and you may not all be familiar with Loral. Loral is a high technology company whose main business emphasis is in the defense electronics sector. We employ 35,000 individuals almost entirely in the United States engaged in engineering, manufacturing, and integration of large-scale hardware and software systems.

We operate facilities in 25 States. Our aggregate revenue this year is $90.5 billion, ranking us as among the largest industrial company in the world. We are one of the world's larger communications satellite manufacturers, with 30 years of history.

I will focus on one of our activities here that is the subject of today's discussion and that is Globalstar. Globalstar is a system based on 48 low-earth orbiting satellites with a distinctive digital technology known as CDMA. Through Globalstar, we will provide wireless voice, data fax and position location services to worldwide users.

Initially conceived with our joint venture person, Qualcomm, Loral is now leading a partnership comprised of leading international telecommunication companies.

At this time, I would like to show you a brief video describing the system.

[Videotape shown.]

Mr. SCHWARTZ. Globalstar is intended to be compatible with other LEO satellite systems. We also intend to work through, rather than bypass, local telecommunications infrastructures and thereby extend the current services offered by that infrastructure. These features will allow us to build a less costly system and facilitate in-country regulatory approvals.

We estimate the 48 satellite and associated ground station systems we are planning on will cost approximately $1.8 billion. In March of this year, we announced the successful completion of our initial round of financing and raised $275 million, and in doing so we were fortunate to attract an impressive groove of international strategic investors comprising both telecommunication manufacturers and serve providers. A list of these companies will be included in my prepared remarks.

In looking forward to our first launch in 1997, much remains to be done. We at Loral are prepared to do our part, but we need to move forward in partnership with the U.S. Government.

As earlier referred to this morning, the FCC has been engaged in an extensive review process to decide the ground rules for U.S. companies to develop international MSS systems. The Commission's negotiated rulemaking process has been driven by an effort to reach consensus among all the parties.

This has been a constructive approach and all have benefited from the dialogue. Yet while the search for consensus is commendable, at some point, practicality suggests that we may not be able to achieve consensus on all matters. The reality is that some applicants are prepared to proceed while others may not be.

Those of us with a serious desire and ability to deploy an MSS system find our investment being held up by those applicants unable or not prepared to invest. Delay may also benefit those in the international community who are not as far along as the U.S.-led ventures.

Delay also threatens domestic employment who will be energized by these substantial projects, and it also inhibits capital raising. These are all important issues, as well as meeting the schedules for the service initiation.

Mr. Chairman, we commend the Commission for its serious well-intentioned and deliberative process. We would urge that they reach closure in an expeditious manner. And I was comforted by the comments that Mr. Hundt made this morning that we can look forward to October 15th and January 31st as a closure. I am hopeful, however, that we will be able to have construction permits granted in the earlier date rather than the latter date. I share Mr. Galvin's very eloquent plea for a relook at the whole limitation on construction.

When private industry is able and willing to put up their own money at risk, it seems that anything that would inhibit that would have to be looked at very seriously indeed. However, there are other issues. One issue I would like to address this morning involves the use of feeder links, the feeder transmission pathways between earth station gateways and the satellites. We believe we have identified suitable spectrum in the C-band, 5-megahertz region.

Currently, this portion of the spectrum is assigned for government use. The FAA had planned future use of a portion of that band, but recently announced that it was no longer required. In the event of future government requirements, technical studies have demonstrated that interference may be avoided by proper positioning of an MSS gateway. We believe that there is a national commitment to support efforts for the development of a global information infrastructure. Therefore, we believe the U.S. Government should authorize the sharing of a portion of this 5-gigahertz band to assist that effort, and it should be done early.

The other issue that requires resolution in the near term involves the Russian GLONASS, Global Navigation Satellite System. A small segment of GLONASS currently operates in the frequency band allocated internationally for MSS conductions which could cause interference. Russian Government officials on two occasions have announced their intention to shift the GLONASS frequencies outside of the spectrum. Following up on this Russian intent, it is important for the U.S. Government through the State government and the Commerce Department to no longer require protection of those frequencies and thereby allow its use by the MSS systems.

In summary, Mr. Chairman, enormous benefits will derived by providing MSS on a global scale. Through Globalstar and other

LEO ventures, the development of MSS will retain leading-edge technology and high-skilled jobs.

In addition, MSS will provide communications services to parts of the world that have long been grossly underserved. We truly will be building upon a global information infrastructure, and we are proud to be a leader in this initiative.

Thank you.

Mr. MARKEY. Thank you.

[The prepared statement of Mr. Schwartz follows:]

Testimony by Bernard L. Schwartz, Chairman and CEO, Loral Corporation Before the House Telecommunications and Finance Subcommittee

July 28, 1994

Introduction and Overview

Good morning. I am Bernard L. Schwartz, Chairman and Chief Executive Officer of Loral Corporation. I want to thank the distinguished Chairman, Mr. Markey, the Ranking Member, Mr. Fields, and all of the other Members of this Subcommittee for the opportunity to testify on global information infrastructure (GII) and international satellite issues.

This is my first appearance before the Subcommittee. Since the Subcommittee Members may not be all that familiar with Loral, allow me to give you a brief overview of our company:

Loral is a high technology company whose main business emphasis is in the defense electronics sector. Loral employs 35,000 dedicated and skilled employees, almost entirely in the United States, engaged in engineering, manufacturing, and integration of large scale hardware and software systems. We operate facilities in 25 states. Our aggregate revenues for this fiscal year will be approximately $6.5 billion, ranking Loral among the nation's largest industrial companies. Our backlog will exceed $10 million. For the past 22 years management has produced an unbroken record of improved earnings, achieving an annual compound growth rate of 34% in earnings, 28% in assets and 28% in stockholders' equity.

All of Loral's activities are on the leading edge of diverse but related technologies, focusing on defense electronics, space telecommunications, information systems and systems integration. Loral is a recognized leader in command, control, and communications; electronic and computer based training and simulation; reconnaissance; imaging; data and signal processing; information storage, retrieval and display; tactical missiles; electronic self defense; missile defense and space systems.

Loral is committed to remaining a major player in this country's national defense industry.

Today, I would like to share with you some of our plans and experiences in telecommunications, another sector critically important for the United States. We have seen telecommunications technology play a vital role in maintaining our national security posture. In turn, we recognize the essential role it serves in furthering our national economic security goals.

Telecommunications is a dynamic, exciting and growing sector. I am encouraged by what I see. As a recent example, I've noted and wish to congratulate this Subcommittee for your role in rewriting and updating the 1934 Communications Act which recently passed the House as H.R. 3636. We in the private sector sincerely appreciate the comprehensive and bipartisan approach in crafting this important legislation. By helping create a positive environment for competition and innovation, it will encourage companies like Loral to commit its know-how, resources and energies to developing new products and service for the market place. As I will discuss later in my statement, we need such a constructive government/industry partnership if we are to realize the economic and consumer benefits that telecommunications technologies can provide.

Loral is one of the world's largest communication satellite manufacturers, with more than a 30-year history. The market place is truly global with varying requirements and our customers reflect this diversity.

We are currently building the next generation telecommunications satellite, the Intelsat VII series for the Intelsat global network. It is a large and complex satellite using a three-axis stabilized design rather than cylindrical, spin-stabilized design of previously launched satellites. It is needed to meet the increased global demand for telephone, broadcast and other services. Two satellites have been launched and seven additional satellites are under contract to Space Systems/Loral.

We are also the supplier of two advanced N-Star telecommunications satellites for Nippon Telegraph & Telephone Corporation under a contract valued at $600 million. These satellites are scheduled to be launched in 1995 and will provide fixed and mobile communications in Japan.

Within the past year, Loral entered the Direct Broadcast Satellite arena. We were awarded a $400 million contract by TEMPO, a subsidiary of TCI, to build two direct-to-home broadcast television satellites. There are a number of DBS service providers focused on the U.S. market and we believe there will be additional international opportunities.

Globalstar: A Link in the Global Information Infrastructure

Over the past several years, Loral has been actively engaged in a major satellite-based communications initiative we call Globalstar. It is a system based on 48 low earth-orbiting (LEO) satellites with a distinctive, digital technology, known as CDMA (Code Division Multiple Access). Through Globalstar, we will provide wireless voice, data, fax and position location services to world-wide users. Initially conceived with our joint venture partner Qualcomm, Loral now is leading a partnership comprised of leading international telecommunication companies.

Mr. Chairman, if you would permit me, at this time I would like to show a brief video describing our Globalstar venture.

[show video - 5 minutes]

Beginning service in 1998, Globalstar will be a low-cost, global, anytime-anywhere telecommunications service that builds on the existing international infrastructure. By 2002 we project to have 2.7 million subscribers and generate annual revenues of $1.6 billion. We envision potential subscribers will have varying telecommunication requirements, for example:

- people in areas not adequately served by terrestrial hard wire or wireless systems;
- business, government and other individuals traveling around the world;
- development and relief workers in third-world countries; and
- third world countries wishing to establish "instant" telecommunications infrastructure.

Globalstar is intended to be compatible with other LEO satellite systems. We also intend to work through rather than bypass local telecommunication infrastructures and thereby extend the current services offered by these providers. This feature will allow us to build a less costly system and facilitate in-country regulatory approvals.

We estimate the 48-satellite and associated ground station system we are planning will cost approximately $1.8 billion. In March of this year we announced the successful completion of our initial round of financing and raised $275 million. In so doing, we were fortunate to attract an impressive group of international strategic investors, comprising both telecommunication manufacturers and service providers. In addition to Loral, the following companies constitute the Globalstar Limited Partnership:

> QUALCOMM Incorporated of San Diego, Calif.; AirTouch Communications, Inc. (formally PacTel) of San Francisco, Calif.; Space Systems/Loral of Palo Alto, Calif.; Vodafone Group of Newbury, England; Hyundai Electronics Industries Co., Ltd. of Ichon-Kun, Korea; Dacom Corporation of Seoul, Korea; Alenia of Rome, Italy; Deutsch Aerospace of Munich, Germany; France Telecom of Paris, France; and Alcatel Alsthom of Paris, France.

In a subsequent round of financing, we anticipate raising an additional $300 million and incorporate additional partners and franchise operators.

Mr. Chairman, in looking back since we started this venture some four years ago, much has been accomplished. We have:

- As a defense-sector company, identified an attractive and real market opportunity in the commercial sector;
- devised a system utilizing U.S. developed technology that will provide employment opportunities;
- planned a service that is consistent with this Administration's plans to have a Global Information Infrastructure which will provide telecommunication links for schools, embassies, government and commercial operations in areas which are currently underserved;
- assured the availability of needed financing and attracted international strategic partners;
- worked with the U.S. Government and other interested parties on an international basis to reserve needed radio frequency spectrum; and
- worked extensively with the FCC and other Big LEO applicants to develop rules and policies governing mobile satellite service (MSS) systems.

In looking forward to our first launch in 1997, much yet remains to be done. We at Loral are prepared to do our part, but we need to move forward in partnership with the U.S. Government.

As this Subcommittee is aware, the FCC has been engaged in an extensive review process to decide the ground-rules for U.S. companies to develop international MSS systems. Along with other applicants, we have worked with the Commission in assessing technical issues and developing approaches that can accommodate all parties.

The Commission's negotiated rule making process has been driven by an effort to reach consensus among all the parties. This has been a constructive approach and all have benefitted from the give and take. Yet, while the search for consensus is commendable, at some point practicality suggests it may not be achievable on all matters for all applicants.

The reality is that some applicants are prepared to proceed while others may not be. Those of us with a serious desire and ability to deploy an MSS system capability find our investment being held up by those applicants unable or not prepared to invest.

Delay also may benefit those in the international community who are not as far along as the U.S.-led ventures. Let me elaborate:

Since MSS is a worldwide service, providing this service outside the United States will subject MSS system operators to FCC and foreign countries' licensing requirements. The present United States lead in MSS, however, is causing anxiety in other parts of the world. Foreign interests have voiced concern that the FCC is purporting to make international licensing decisions which may jeopardize the introduction of global MSS. These foreign interests would prefer the FCC delay its licensing process for a year or more to afford their manufacturing and service industries to catch up with the initiatives of U.S. companies.

These statements by foreign interests should not cause the FCC to slow MSS licensing. Because the potential worldwide benefits of MSS are numerous, further delay in the introduction of MSS would not be in the public interest. Licensing delays will only delay the realization of MSS' benefits to consumers throughout the world and subject a promising U.S. initiative to international bureaucracy.

Mr. Chairman, we commend the Commission for its serious, well-intentioned and deliberative process. We would urge they reach closure in an expeditious manner.

In that regard, I was very gratified by my meeting with Chairman Hundt two weeks ago. He indicated that, in consultation with the Congress, the FCC had agreed to complete the MSS rulemaking by October 15 and to issue licenses by January 31, 1995.

Chairman Hundt also indicated that once the rulemaking was completed the FCC would consider the issuance of waivers necessary to permit Globalstar and others to begin spacecraft construction at their own risk, realizing that they may not obtain licenses. We hope the FCC will act favorably and promptly upon our waiver request.

That prior government approval is required for private industry to assume the risks inherent in investment in new and promising initiatives seems to me, at least in this context, archaic. Assuming that the statute requires the FCC to grant prior approval, it is clear that it would be most counterproductive to rapid improvement in the global information infrastructure to delay or withhold it.

In reaching closure, much of the focus of the FCC rule-making process has been on questions pertaining to sharing the internationally agreed upon spectrum. There are other issues. Two such issues are of particular importance to Loral.

One is the allocation of spectrum for feeder links, the transmission paths between the satellites and earth station gateways.

Globalstar has identified 200 Mhz of spectrum in the 5000-5250 Mhz band for feeder uplinks (Earth-to-space). A 5000-5250 allocation will enable Globalstar to provide low-cost mobile-satellite service to handheld terminals. Other feeder link allocations -- notably in the Ka-band at 20-30 Ghz -- are being considered. In our judgment they will not serve as well for the type of service Globalstar is designed to provide. Just as important, proposals for use of the Ka-band appear to exceed the capacity of the band to accommodate all of them. If the many meritorious proposals for terrestrial and satellite services are to proceed, additional spectrum will have to be found.

We believe that we have found it in the 5 Ghz band. The 5000-5250 portion of the band we have identified is assigned to government use. It is here that the government can play an indispensable role in encouraging Big LEO systems, by authorizing Globalstar to share the band.

The Federal Aviation Administration (FAA) had planned to use a portion of the 5 Ghz band for microwave landing systems (MLS). Recently, however, the FAA has announced that it does not plan to proceed with the installation of MLS. Notwithstanding that and notwithstanding technical studies that demonstrate that Big LEO gateway earth stations can be located to avoid interference, the FAA continued to express misgivings about Globalstar's request to operate in the 5000-5250 band on a co-channel basis.

If our national commitment to develop the GII is an strong as I believe it should be, the U.S. Government should authorize sharing of the 5000-5250 Mhz band by Big LEO systems. Delay in allocating appropriate feeder link spectrum to Big LEO's in the United States will stall the development of the GII, and diminish the benefits that the GII will produce for the nation and the world.

The other issue that must be resolved in the near-term involves the Russian GLONASS global navigation satellite system. MSS has been allocated user uplinks in the 1610-1626.5 Mhz band consistent with international allocations adopted at WARC-92. A small segment of GLONASS, however, currently operates in the 1610-1616 Mhz frequency band.

The mission of GLONASS originally was to provide support to Russian defense objectives -- en route navigation of defense aircraft, missile guidance, and other tactical activities requiring position location. Recently, the commercial sector, including the aviation community, has demonstrated interest in using GLONASS for position-location, navigation and landing of civil aircraft.

I understand that theoretically MSS system operations could cause interference to receipt of GLONASS signals used by aircraft for precision landings. There is a practical solution available; move GLONASS operations completely out of the band, below 1606 Mhz (to provide some guardband between MSS and GLONASS). This move would accommodate MSS spectrum requirements and ensure that GLONASS could be used for precision landings with a reasonable out-of-band emission standard.

On two occasions Russian government officials have announced in international forums their intention to move GLONASS down in frequency over the next few years. The GLONASS satellites have relatively short lives and this shift could be made as the Russians launch their next generation of satellites.

In reliance on the Russian commitment to shift frequencies, it is critical that the U.S. Government announce that it will not require protection of GLONASS signals in 1610-1626.5 Mhz band. Such an announcement will send a clear signal to aircraft receiver manufacturers to restrict their receive bandwidths to avoid any potential reception of MSS signals and provide MSS interests certainty as to the frequencies available for their use.

In summary, Mr. Chairman, enormous benefits will be derived by providing MSS on a global scale. Through Globalstar and other LEO ventures, the development of MSS will maintain leading edge technology and high-skilled jobs that have supported our national defense industrial needs for many years, but are now being excised as defense expenditures are reduced. In addition, MSS will provide communications services to parts of the world that have long been grossly underserved. This will allow the U.S. Government and commercial activities around the world to benefit from the availability of a global MSS communications network.

I am encouraged by the interest and constructive attitude by this Administration, the FCC and Congress in expanding our global information infrastructure. As a company that intends to participate actively in the international telecommunications marketplace, I thank this Subcommittee again for your interest and invitation to appear. I look forward to my testimony today as just the beginning of an ongoing dialogue and collaborative effort.

Mr. MARKEY. Mr. Crockett.

STATEMENT OF BRUCE L. CROCKETT

Mr. CROCKETT. Thank you, Mr. Chairman.

And good morning Mr. Chairman and members of the subcommittee. I am pleased to have the opportunity to testify here today.

You know well COMSAT's record in fulfilling the mission mandated by Congress to establish a commercial global satellite system, and the achievement by U.S. industry of world leadership in satellite technology as a result of your initiative. Today, I am here to talk to you about change and to explain what COMSAT's view of change is, why we believe it is needed, and why the U.S. Government's role is so critical.

COMSAT believes that INTELSAT and INMARSAT must be transformed from their intergovernmental treaty-based structures to corporate entities which run like international companies. In our view, this would entail the following:

Number 1, investment would be allowed at market value with shares publicly traded worldwide; 2, the existing intergovernmental agreements with their inherent privileges and immunities would be dismantled—the international community served by the privatized corporations would retain regulatory oversight as appropriate in this new environment; service providers in each country would be subject to their domestic regulatory systems; number 3, the existing roles of signatories and parties would be eliminated.

You might ask why is COMSAT advocating such drastic change? Implementing the congressional vision of a global system over 30 years ago required cooperation with other countries, and INTELSAT and INMARSAT became rooted in intergovernmental agreements, since most telecommunications providers were governmental monopolies.

This policy was both reasonable and unavoidable at the time. It is not, however, a policy designed for a competitive environment. Nor is it sustainable in the long run.

By virtue of their treaty-based structures, both INTELSAT and INMARSAT are burdened by slow decision-making, costly overhead, and strategic planning which is conducted in full view of the competition. Their structure also requires agreement among many differing and conflicting interests. This absolutely cripples the ability of the organizations to respond quickly and effectively to market forces.

Today, the environment in which we operate offers numerous choices for the transmission of international traffic. INMARSAT's own members compete vigorously with each other for traffic through land-earth stations. They also compete with other systems using different technologies including high frequency radio and regional cellular.

And soon, they will face competition from exciting new mobile systems operating in different orbits. INTELSAT also faces competition from fiber optic cable and private central satellites. The increasing number of transoceanic facilities is dramatic.

Just to illustrate I have three charts which will visually demonstrate this growth. The first chart shows what the world looked like in 1988 for satellites and fiber optic cables. There was only one undersea fiber optic cable, this cable-linked United States and Europe. That is it.

There were only three competing satellites. INTELSAT carried 70 percent of the international traffic to and from the United States at that time.

Now the second chart. By 1993, undersea fiber optic cables linked most areas of the world and eight non-INTELSAT satellites carried traffic to and from the United States. Today, fiber optic cables carry about 65 percent of U.S. international traffic. Satellites only 35 percent.

The last chart shows the near future, in fact, only 2 years from now, facilities planned for operation in 1996. Undersea fibers will triple their current capacity in the next 2 years. Separate systems will grow to 14 satellites. Clearly, the environment is competitive. INTELSAT and INMARSAT simply are not structured to move at the pace set by today's marketplace and customer demands.

Many proposals have been made for international—for intermediate measures and halfway reforms but these would take many years to resolve and delay the move to privatization. Privatization is the only reform that will comprehensively address all issues of competitive fairness and ensure that universal service and the objectives set forth in the satellite act continue to be met.

This will not be an easy process. The actual decision-makers are governments as well as the signatories. In fact, there are 133 member countries in INTELSAT and 75 in INMARSAT.

It is clear from my discussions with other member countries, large and small, that they are waiting for the United States to take the lead before they will commit to privatization. So what do we need? What are we asking for today?

The INTELSAT assembly of parties will meet this October. We need the U.S. Government to formally voice its support for privatization no later than mid-September to give other nations the impetus to act in time for that meeting. Without this support, the momentum for change could be lost.

Throughout recent history, the United States has played a leadership role in liberalizing telecommunications regimes and promoting global competition. The world needs that continued leadership. And we need it now.

I appreciate the opportunity to address you today. And will be happy to answer questions at the appropriate time.

Thank you.

Mr. MARKEY. Thank you Mr. Crockett, very much.

[Testimony resumes on p. 126.]

[The prepared statement of Mr. Crockett follows:]

Statement of

Bruce L. Crockett
President and Chief Executive Officer
COMSAT Corporation

Introduction

Increased global competition and changes in telecommunications regulation worldwide have transformed the satellite industry from one in evolution to one in radical revolution. This change is good news for U.S. consumers, manufacturers and the satellite industry, but only if INTELSAT and INMARSAT can actively participate in this fast-paced, competitive marketplace.

For this reason, COMSAT has embarked on a bold new course. Our mission is to ensure that INTELSAT and INMARSAT remain operationally sound and financially healthy, and thereby able to continue to provide progressive, state-of-the-art satellite communications. These organizations must remain systems of choice, rather than be allowed to diminish into systems of last resort. I submit that the only way to accomplish this goal is through the privatization of INTELSAT and INMARSAT.

Since we first spoke of privatization, COMSAT has led the call worldwide for the transformation of INTELSAT and INMARSAT into market-driven, shareholder accountable entities. The call has been met with pledges of support and assistance from key members of both organizations who recognize that their institutional structure must change in order for them to remain viable.

As you are well aware, the genesis of INTELSAT, INMARSAT and COMSAT began here in the halls of Congress. And now, we again look to the U.S. Government for continued support and leadership so that these organizations are able to move forward. The only way we can succeed in this campaign is with the full commitment of the U.S. Government. We must convince those member countries who fear change that privatization is essential to ensuring that INTELSAT and INMARSAT can continue to provide the infrastructure, operations and services on which they depend.

Let me be frank: remolding these organizations will be difficult. Like all business ventures, change carries both risks and rewards. This effort will be complicated, but it is clearly the right thing to do.

Objectives Set Forth in the Satellite Act Have Been Met

INTELSAT

The mandates set forth in the Satellite Act established the broad public policy objectives for the organization. The mandates were to:

- establish a commercial global system with global coverage;
- provide service to economically less developed countries as well as to those more highly developed;
- use spectrum efficiently and economically; and
- reflect the benefits of this new technology in both quality of services and charges for such service.[1]

In all respects, COMSAT and INTELSAT have been successful in accomplishing these objectives.

The INTELSAT system provides worldwide coverage to virtually all countries; currently over 200 countries access one or more of INTELSAT's 20 operational satellites.

As of July 1, 1994, 133 countries were members of INTELSAT. The member countries come from every corner of the world. About 41% of INTELSAT's members are considered developing nations. An additional 70 countries, territories and principalities are non-member users of the INTELSAT system.

INTELSAT consistently has encouraged more efficient use of spectrum by placing greater demands on satellite manufacturers to design features and capabilities more sophisticated and efficient for each new generation of satellites.

Since their creation, the cost of space segment capacity provided by COMSAT and by INTELSAT on a per unit basis has continually been reduced.

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[1] Satellite Act, 47 USC §§701 (a)&(b).

INMARSAT

INMARSAT was created for the purpose of developing and operating a global satellite telecommunications system to serve the maritime telecommunications requirements of the United States and foreign countries.[2] Its role has been expanded to include aeronautical and land mobile services as well. Again, COMSAT and INMARSAT have succeeded in accomplishing these goals.

The organization consists of 75 member nations. It manages 11 satellites serving four ocean regions. Its members operate 40 earth stations worldwide as well as network control stations and an operations center. One of its primary purposes is to make available the space segment necessary for improving maritime, and as practicable, land mobile and aeronautical communications. In this regard, INMARSAT not only has succeeded in achieving its original objectives, but also has developed a satellite system which has revolutionized the nature of emergency global communications through its Global Maritime Distress and Safety Systems (GMDSS) worldwide.

In addition, INMARSAT plays an essential role in the aeronautical environment by providing commercial and private aircraft cockpit communications, and, with the launch of the INMARSAT-3 spacecraft which will be launched beginning in late 1995 and operational by early 1996, will provide global navigation services as well. On land, the system is an invaluable tool for emergency medical and relief organizations in times of natural and manmade disasters such as the 1986 earthquake in Mexico, Hurricane Andrew in 1992, the relief mission to Somalia in 1993, ongoing war in Bosnia, and the relief effort in Rwanda, where we are fully engaged.

Benefits to the United States

Apart from their statutory obligations, both organizations have contributed significantly to the U.S. economy through the procurement of satellites and launch vehicles. The U.S. content of these contracts totals $5.2

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[2] INMARSAT Act, 47 USC §§501 (a).

billion, with the majority of the money coming from international members of INTELSAT and INMARSAT. In addition, numerous study and research and development contracts have been awarded to U.S. industry over the years, and INTELSAT and INMARSAT have been major drivers for the growth of the U.S. earth station industry.

The mandates in the Satellite Act have been successfully accomplished. The needs of the United States are being met. The needs of the international community are being met. The journey has been a success.

But the future is upon us now, and living on past successes will not guarantee a successful future. We must look closely at the changes in the marketplace of tomorrow which dictate the need for fundamental change within INTELSAT and INMARSAT today.

Competition

Despite our successes, fierce competition threatens the continued existence of both INTELSAT and INMARSAT in their current form. Today, INTELSAT, INMARSAT and, as a result, COMSAT are facing intense competition on all fronts. The greatest competition to INTELSAT comes from a different technology altogether - fiber-optic cable. Fiber-optic cable is a preferred transmission medium on main trunk lines. In fact, approximately 65% of the switched voice traffic to and from the U.S. is now carried by fiber-optic cable. Ironically, COMSAT's three main U. S. international service carrier customers (AT&T, MCI, and Sprint), which account for a significant portion of COMSAT's total demand, are vertically integrated firms that own most of the competing trans-oceanic cable facilities. This puts COMSAT in the unenviable position of having to compete fiercely with its own customers.

The facts highlighting the strength of this competition are stark. In just two years, trans-oceanic fiber-optic cable capacity will stand at almost triple the 1993 levels. Cable systems linking the U.S. to Europe, the Mediterranean, the Mideast, East Asia and the Pacific Islands have enough unused capacity to absorb all of COMSAT's services to those geographic regions. Projects such as

AT&T's plans to construct a 20,000 mile fiber-optic cable system encircling Africa by 1998, and a similar project in South America, will mean greater competitive pressure to areas once considered the primary domain of satellites.

Beyond fiber optics, competitors within the satellite industry are rapidly moving into regions INTELSAT and INMARSAT currently serve. Separate satellite systems aggressively compete with COMSAT in private line, video and audio, and switched voice services. Capacity on planned and existing separate system satellites in areas not easily accessible by cable is, or soon will be, sufficient to handle COMSAT's customer traffic there. By the end of 1996, at least seven separate system satellites will be operating in the Atlantic region and six separate system satellites will be providing service over the Pacific.

Within two years, separate system satellites will be operating in all three ocean regions. Their ability to provide service will be greatly enhanced by 1997, when public switch telephone network restrictions on separate system satellites will be fully lifted. U.S. Government policy established in 1984 set the stage for this expansion. The policy established that it was in the national interest that separate satellite systems be allowed to compete with INTELSAT. COMSAT supported this announced policy and its goal of promoting a competitive marketplace.

Competition is also pervasive in the mobile communications arena. HF radio, cellular, C- and K-band satellites both domestic and international, AMSC and, other mobile satellite systems will compete with INMARSAT. These are formidable competitors. In addition to competition outside of the INMARSAT system, COMSAT faces competition from service providers within the organization itself. INMARSAT service providers aggressively compete amongst themselves worldwide for mobile service customers.

COMSAT in the Marketplace

For our part, COMSAT has made many changes in response to the dramatic shifts in the marketplace. Anyone who still thinks of COMSAT as a monopoly is far behind the times. We are subject to fierce competition in just about every market we serve. We have market power nowhere. In a few short years, we have changed our culture, our focus and our commitment to customer service in transforming to a market-driven organization.

The new COMSAT welcomes the opportunity to meet its competitors in the marketplace in order to best serve the customer. Despite constraining regulations which were developed in another era and which are sorely in need of reform, COMSAT has changed course to stay competitive. For example, fiber optic cable providers have challenged our premium voice and data services on both price and quality. We have met the challenge on prices by lowering our rates to our major voice and data customers and by inventing new technology to raise quality. This has already led some to begin to rethink their cable investment decisions for the future, but fiber is also improving all the time, so the competitive pressures will not subside. Therefore, we are prepared to continue to meet these and all competitive challenges before us.

Above all, this Subcommittee should be clear on one point: COMSAT does not want any special governmental status, privileges or protections. We are confident in our ability to thrive and prosper in a competitive environment without statutory protections, and we are prepared to continue to undertake all the risk involved in conducting our business. All we want to do is compete on terms that are fair. Unfortunately, while COMSAT has the flexibility to diversify in its non-regulated businesses, it has hampered flexibility to respond to the changing market forces affecting INTELSAT and INMARSAT. Dramatic changes to the structure of these organizations must be urgently addressed.

The Case for Privatization of INTELSAT and INMARSAT

The question of how to preserve the strengths in quality, service and technology of INTELSAT and INMARSAT while positioning them to prosper in future markets that bear little resemblance to the past has continually preoccupied many owners of the consortia. For some years now, the owners of both organizations have wrestled with the structure and tried to think of ways to pare down the current regime as a possible solution. But for the marketplace of the future, nothing short of a major overhaul will do. We firmly believe that piecemeal, incremental change is a recipe for failure. Nothing but full privatization will assure these organizations can meet customer demands in a competitive environment.

INTELSAT and INMARSAT have been struggling to be more commercial within the current treaty-based cooperative structure. However, real commercial responsiveness is hard to come by when every owner brings different market perspectives and different or even conflicting priorities and objectives to the decision-making table. Building a consensus takes a long time, and like most multilateral organizations, both INTELSAT and INMARSAT can only move as fast as their slowest member.

For example, as INTELSAT's membership has grown, and many of its members participate in competing wireless and submarine cable systems, it is becoming increasingly difficult to agree on plans for replacement or new satellite capacity, let alone on a strategic future for the system. Also, as previously described, the decision-making process mixes political, public policy, and business considerations, and the constant search for consensus among oftentimes competing interests inhibits the ability of the organization to respond in a timely way to customers' needs or competitive market forces. The problem, simply stated, is that the treaty fabric, which previously held the organization together, has started to unravel.

The current structures of both organizations are further bogged down by high costs and inefficiency. It is clear that the poor allocation of resources is tolerated for greater periods of time in quasi-governmental settings. Difficult decisions are delayed because public organizations are prepared to tolerate losses and finance those losses. Managers in privatized operations are better motivated to perform to the benefit of the company, the customer and the shareholder. This kind of motivation does not exist under the current structure.

Experience has shown over and over that commercial corporations accountable to customers and shareholders are the most efficient way to provide products and services in a competitive environment. Direct exposure to competitive forces lowers costs, improves quality, streamlines management, and fosters innovation.

Privatization and open competition would align INTELSAT and INMARSAT decision-making with the market. Rigid operating procedures grounded in INTELSAT's past would disappear. A privatized INTELSAT could offer end-to-end service on the same basis that other international telecommunications companies do today.

For our customers, we expect that privatization will lower costs. Rational economic incentives -- as opposed to political ones -- will impel INTELSAT and INMARSAT to more precisely match investments with customers' specific future requirements. Privatization will also result in streamlined operations and increase the efficiency with which customers obtain capacity.

Apart from the benefits of privatization, we must also consider the danger of not privatizing and the resulting loss of the services these systems provide today. Those who will suffer from the demise of these systems will not be the developed nations - they have the capital and flexibility to seek out alternative suppliers for service. It is the less developed nations that will bear the brunt of what will inevitably become the balkanization of telecommunications resources. Very simply, developed countries will be technology rich while developing countries such as those in Africa will be technology poor. This outcome would be diametrically opposed to the goal of Vice President Al Gore, Federal Communications Commission Chairman Reed Hundt and this Committee to foster a Global Information Infrastructure (GII). The truth is we will never have an all-inclusive GII in an environment where the neediest nations are left out of the satellite communications market. Without privatization, developing countries will be underserved and information poor.

I believe that we have an obligation to these member countries to provide for their continued participation in the communications revolution. COMSAT is committed to the continuation of universal service to these countries under a private, commercial regime.

There is also the issue of operating under the privileges and immunities that appertain to treaty organizations. The privileges and immunities accorded to INTELSAT and INMARSAT are derived from the treaties as well as the

International Organizations and Immunities Act[3]. The Act provides that privileges and immunities be extended to international organizations which are certified by the President of the United States by Executive Order. President Johnson certified INTELSAT, and President Carter certified INMARSAT.

Privileges and immunities are integral to the intergovernmental structure of these treaty organizations and cannot be independently severed. These privileges and immunities were established to enable the participation in INTELSAT and INMARSAT by other governments. It is COMSAT's view that rapid progress toward privatization is the only way in which to eliminate privileges and immunities.

The Look of Privatization

Transforming INTELSAT and INMARSAT into commercial entities will best ensure their continued survival in a highly competitive marketplace. The structure needs to change entirely. COMSAT proposes that the privatized organizations have the following elements:

(1) fully commercial entities with shares traded openly on stock exchanges worldwide;
(2) shareholder-elected Board of Directors;
no privileges and immunities;
(3) elimination of traditional party/signatory structure;
(4) operation by professional managers whose compensation will be based on efficiency and performance;
(5) continued firm commitment to universal service and maritime distress and safety.

I want to reiterate the last element of the vision of both these organizations: COMSAT stands committed to the continuation of providing universal service and maritime distress and safety. COMSAT was created for the purpose of fulfilling a U.S. vision of linking all countries, particularly less developed countries, with satellite communications. Unlike fiber-optic cables, which are suited for point-to-point, high volume traffic routes, satellites are ideal for point-to-multipoint communications. The global nature of the INTELSAT and INMARSAT systems enable even the most remote villages and locations to be linked to the world's major cities and business centers. This demonstrates that tremendous headway already has been made towards the creation of the GII.

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[3] 22 U.S.C. §§ 288

The privatized entities still would be required to fulfill public service obligations. Through privatization, a competitive environment and market incentives can assure that universal service needs are met, and the capital available to private entities will make the likelihood even greater. The continued expansion and advancement of national and international infrastructure requires an enormous amount of capital. Whereas economic development grants or subsidized loans can provide seed money, they are not sufficient to sustain and advance infrastructure development.

Competitive forces should be given every opportunity to operate in meeting universal service requirements, with the government ensuring that regulatory policies facilitate, not impede, business development. In this way, developing countries can be assured of continuing to receive the reliable service they receive today.

How We Get There: The Role of the U.S. Government

We strongly believe INTELSAT and INMARSAT need to be fundamentally restructured to survive in this market. The next issue is how we get to a privatized Corporate INTELSAT and INMARSAT. Many participants in the two organizations are waiting for a clear signal of support from the U.S. Government before acting on privatization. COMSAT alone cannot move the ball down the field without the U.S. Government leading the way with other governments as our partners in this effort.

A full-blown campaign by the U.S. Government to convince member countries of the value of privatization will be required in order to achieve this goal. Within INTELSAT, a strong effort to demonstrate U.S. support for privatization should ensue in coming months in order to secure continued consideration of privatization at the Assembly of Parties in October 1994 and into

1995. There is clear recognition that some degree of restructuring will be required and that, whatever changes are ultimately agreed upon, the next several months will be the most critical in terms of identifying, assessing, selecting and implementing those changes.

Within INMARSAT, the U.S. Government has taken the initiative among Parties by promoting the need to study the question of privatizing INMARSAT, and COMSAT appreciates this measure. Nevertheless, if INMARSAT is to be privatized, the U.S. Government will have to play a lead role in actively supporting and promoting privatization with the Administrations of other countries. The U.S. should lead with visits to individual countries and to regional groups of countries on an expedited basis. This is critical to the forming of an early consensus, which is central to all that follows. Once this has been done, working groups, with Party and Signatory participation, should address the many policy and business issues associated with implementing a new commercial structure. Transitional arrangements would also have to be developed.

Once this is accomplished, there would need to be amendments put forward, first to the Council, then to the Assembly, regarding privatization. Since the matter would clearly be a substantive one, a 2/3 vote of the Assembly, on a one-country, one-vote basis, would be required for passage. That is why an intensive U.S. lobbying effort, in large and small countries, is so vitally necessary as a first step.

Congress may eventually want to amend the Satellite Act, and COMSAT is committed to working with you through the process. However, Congress must be certain that the U.S. Government's and COMSAT's position under the treaty is not jeopardized in advance of privatization. If the Act is amended too early, the whole privatization effort could fail. As the leader in this effort, maintaining COMSAT's credibility and standing within these organizations is critical. Any change in standing throughout this process strips COMSAT of that credibility, and the leadership is lost.

I cannot name a specific date at which amendments to the Act should occur. However, based on everything that must take place between late 1997 or early 1998, there are too many unknown factors to consider, not the least of which is the time it will take to get the support of all the member nations in INTELSAT and INMARSAT. The U.S. is not the only decision-maker. There are 133 member countries in INTELSAT and 75 in INMARSAT. We are going to need the cooperation of the governments of these countries in order to succeed. It is clear from my discussions with other member countries that they are waiting for the U.S. to take the lead before they will commit to supporting privatization. For that reason, the full pro-active support of the U.S. Government is imperative.

Conclusion

Mr. Chairman, I spoke earlier of how far we have come from the enactment of the Satellite Act in 1962 and the birth of commercial satellite communications to a vigorous, thriving, competitive global marketplace today. In order to remain viable, INTELSAT and INMARSAT must make fundamental changes to their structure. The vision of the future that was articulated by Congress in the Satellite Act has been realized. We ask this committee and the U.S. Government to ensure that we be allowed to carry this vision into the future. The successful conversion from a treaty-based structure to full privatization of INTELSAT and INMARSAT will serve as a testament to that vision and the revolution it began.

Mr. MARKEY. Mr. Anselmo.

STATEMENT OF RENE ANSELMO

Mr. ANSELMO. Thank you, Mr. Chairman.

I am very happy to be here as you can well imagine. My name is Rene Anselmo and I am the founder and chairman of PanAmSat. I thank the committee for the opportunity to testify here today.

We launched our first satellite, PAS-1, which covers North and South America and Western Europe, in June of 1988. Contrary to what the flood of INTELSAT lobbyists told this committee and the Congress prior to the authorization of the U.S. separate international satellite systems, the sky did not fall down when PAS was launched. INTELSAT's so-called universal service did not disappear.

Costs of satellite capacity to the Third World and developing nations did not go up due to PanAmSat "cream skimming." On the contrary, INTELSAT's capacity has more than doubled, prices have come skyrocketing down, and today, Latin America is a boom market for telecommunications, broadcasting, and cable television thanks to the introduction of services from PAS-1 and competition in the telecommunications market.

Mr. MARKEY. Mr. Anselmo, could you lower that microphone please?

Mr. ANSELMO. OK. In the years since this subcommittee last held satellite hearings, PanAmSat has brought the benefits of satellite technology to the world. Three weeks ago we launched successfully the first of three new satellites, PAS-2, which covers all of Asia and the Pacific Ocean region. During the next 9 months, we will launch PAS-3 and PAS-4, and we will have created a private global satellite system that will serve 98 percent of the world's population.

That is what is called "universal service" in the language of the spinmasters from COMSAT who are here and have been touting universal service as a burden they must bear, a cross of thorns they must carry in return for being "shackled" with all their privileges: diplomatic status, tax exemption, antitrust immunity, government subsidies, and freedom from the regulatory process.

I had a few ideas on how to privatize INTELSAT and how to straighten out the situation, but some things have been said here at the meeting that I would like to comment on.

First of all, this universal service. INTELSAT never, ever provided universal service. So don't let anybody ever tell that you they did. They didn't.

They provided universal service to their PTT monopolies, not to the public. The public around the world never benefited from the satellite technology. Otherwise, you would not hear Chairman Hundt say, well, I heard the story in Africa if only we could make a telephone call. That would be our dream.

INTELSAT has been around for 30 years, and they still can't make a phone call in Africa. What have they been doing? They never provided the service. They turned it over to the phone companies whose only interest was to squelch it and deny the use to anybody that wanted to use it. Now the submarine cables are coming in and telephone traffic is coming down.

I don't think INTELSAT cares, but I am sure that COMSAT would like to be in some new businesses, more of our businesses, that INTELSAT never gave a damn about before. I can't blame them, but I want to say let's not hear about the burden or the necessity to preserve universal service.

You could rip up that INTELSAT treaty like this today—today—and it would be the equivalent of blowing out a candle in Times Square on New Years Eve as far as the effect on telecommunications services in the world. Believe me, they would still be providing satellite service. We would, too. Many other countries are going up with satellites. And we would all be well rid of them.

Henry wants me to make a few points here. First, Congress should send a message to the FCC and the Department of Commerce and State to deal INTELSAT from further expansion while the future structure is being debated. There is nothing to protect. The sky will not fall down if we just say stop the expansion now. No more grabbing slots. No more bank rolling orbital positions. No more satellites. No more getting into my pants. Just stop it until they are privatized and then we will all play ball together.

Second, Congress should remove—there is some question about how difficult it is going to be to get all of these other countries to agree to ripping up the INTELSAT treaty which is totally unnecessary. It is no big deal. You just do it. Just like we announce we are getting off the gold standard. Well we are getting off of the monopoly standard here. Just do it. You don't have to consult with all of these guys, just tell them, friends, we are no longer going to play the monopoly game with you.

But we can do this immediately. You can remove COMSAT's privileges and immunities now, today if you want. But let's get rid of COMSAT. That you can do effectively without talking to Zaire or anybody else or Argentina or anyone.

And third, the Congress should create the legislative framework for future privatized INTELSAT structure so that it cannot continue to abuse the dominant position that as a monopoly treaty organization it was granted. What we are trying to say, I think—if I just took the INTELSAT thing and ended it now, divvied up—give two or three orbital slots to two or three companies in each ocean region, then you would have two or three global providers, PanAmSat would be a fourth global provider.

Get rid of all the monopoly baloney and get everybody off on an even start. Have INTELSAT give back the slots that they are hoarding and not using. Stop with the satellite construction that they are up to and put it on hold now, and we will have a very happy world and it can be done very quickly. Believe me. And nobody is going to be hurt. Not even COMSAT's widows and orphans would feel a thing.

I have 15 other points, but I will stop.

Mr. MARKEY. Thank you. They are well paid to write that, but you are the boss.

[The prepared statement of Mr. Anselmo follows:]

Statement of

Rene Anselmo
Chairman, PanAmSat, L.P.

INTRODUCTION

My name is Rene Anselmo. I am the founder and Chairman of PanAmSat, the world's first private, competitive international satellite system. I thank the Committee for the opportunity to testify and to say nice things about Comsat and Intelsat today.

We launched our first satellite, PAS-1, which covers North and South America and Western Europe, in June of 1988. Contrary to what the flood of Intelsat lobbyists told you prior to the FCC's authorization of U.S. separate international satellite systems, the sky did not fall down when PAS-1 was launched. Intelsat's so-called universal service did not disappear. Costs of satellite capacity to the third world and developing nation's did not go up due to PanAmSat "cream skimming." On the contrary, Intelsat's capacity has more than doubled, prices have come skyrocketing down, and, today, Latin America is a boom market for telecommunications, broadcasting, and cable television—thanks to the introduction of service from PAS-1 and competition in the telecommunications market.

As is common knowledge, PanAmSat has been a great success despite the fact that Intelsat and Comsat opposed us every step of the way and, as told to you by the Intelsat lobbyists, that there was no demand for additional satellite capacity in Latin America—or the rest of the world for that matter. Indeed, if you recall, the Intelsat folks were claiming that there was a surplus of satellite capacity at the time the battle of separate international satellite systems was being fought. So, how did we do it? Very simple. We brought to Latin America the latest in satellite technology—far superior to anything Intelsat had ever provided. We asked fair prices. More importantly you didn't have to kiss some PTT's ass to use our satellite. We provided service.

Anyone and everyone was, and is, free to use PanAmSat—just like in the United States, where anyone is free to use domestic satellites. The U.S. wanted to make this technology available to the world. The goal of the Kennedy Administration's and Congress' 1962 Satellite Act was to foster the free flow of information and the creative use of satellite technology for the real benefit of mankind. Thanks to Intelsat, this proved not the case.

Intelsat has taken a technology that, by its very nature, should have been open and available to all and put it in a cartel straightjacket. The '62 Act sought to make satellite technology freely available to all mankind. But the goal of the PTTs was not to bring the benefits and efficiencies of satellite technology to mankind or to enhance the free flow of information in the world. It was to control that technology, suppress it, and discourage and obstruct the independent use of satellites outside of the cartel.

They got laws passed in all countries that were meant to keep satellite technology out of the hands of communications users other than the PTT monopolies. No, those who knew, knew one thing. The day satellites were launched, telephone monopolies as we know them would be obsolete. Given time to develop and use the technology, who would need the bottleneck technologies of the PTTs anymore? Satellites were a threat! And yet we allowed Comsat turn the philosophy of the 1962 Satellite Act on its head and turn satellites over to the very people whose vested interest was to control and suppress their use.

And what about information control? News from other places? Culture—a cultural invasion, propaganda—all the horrors of free choice. People being able to choose and get the information they want—not solely that which was dished out to them by their governments with their control over terrestrial media. How, for God's sake would all these socialist governments, which like to do their citizens' thinking for them, control that looming monster in the sky? Well, I'll tell you how they did it. They created the Intelsat cartel. They wrote themselves a legal monopoly—not just a monopoly on international satellite telephony, but for the use of the entire technology. A great leap backward for mankind!

We just missed by only a hair having Comsat cram this system down our throats in the United States. For that we can be thankful. But now, we have to loosen their grip on satellite technology globally. This Congress, this government should no longer be a party to perpetuating this cynical distortion of the open-handed philosophy of the Communications Satellite Act of 1962.

In the year since this subcommittee last held satellite hearings, PanAmSat has brought the benefits of satellite technology to the world. Three weeks ago we successfully launched the first of three new satellites, PAS-2, covering Asia and all of the Pacific Ocean Region. During the next nine months we will launch PAS-3 and PAS-4 and we will have created a private global satellite system that will serve 98% of the world's population. That's what's called "universal service" in the language of spinmasters from Comsat who will be here to tout "universal service" as a burden they must bear, a cross of thorns they carry in return for being "shackled" with all their privileges: diplomatic status, tax exemption, antitrust immunity, government subsidies and freedom from the regulatory process.

Well, I'm here to tell you that providing global "universal" satellite services is no burden, nor is providing service to lesser developed countries a burden as these chest beaters from Comsat/Intelsat would have you believe. It's a golden opportunity.

We are thankful for having had this opportunity. When we serve 98% of the world's population, we will do it with no government subsidies, no government financing, no tax exemptions, diplomatic immunities, antitrust immunities or other special privileges and concessions that Comsat/Intelsat enjoy. We built a global international satellite system without an international treaty or a Director General, a Board of Governors, Signatories, an Assembly of Parties and meetings of the Plenipotentiary. All that fancy, highfaluting posturing and masquerading to cover up the fact that Comsat/Intelsat's goal has never been to provide "universal service" or serve the developing nations, or any other of the higher minded, higher calling missions with which they endow themselves to dupe the politicians, the press, and the public.

They continue to push this line and talk about how continued government involvement and subsidies are needed for a privatized Intelsat to to serve the so-called thin routes. I've got the answer for them. I am willing to make this commitment right here: Let Comsat or Intelsat identify any route that is too "thin" for them; any country that is uneconomic for them to serve; any service that needs a subsidy of "cream" from the heavy traffic regions; any place where "universal service" is jeopardized; and PanAmSat will willingly, gladly relieve Intelsat of that burden.

The past year has brought about a major change in the debate on the status of Intelsat, and its U.S. signatory, Comsat. Now everyone is talking about privatizing Intelsat. What's going on here? Even Comsat says it supports privatization because Intelsat is hobbled by its treaty status. I can't think of many businesses that would not willingly put on the shackles of tax exemption, antitrust immunity, and freedom from the regulatory process.

In fact, Comsat just talks the privatization game in front of the U.S. government, knowing that any change will be a long time coming. Meanwhile, Comsat and Intelsat work to make that change as limited as possible and to take advantage of their present privileged position to grab every possible advantage now. If the U.S. wants to ensure a competitive international satellite market, if the Congress wants to foster the Global Information Infrastructure, you must take action now. With passage of the 1962 Communications Satellite Act, the Congress led the effort to create the present Intelsat/Comsat structure; now it must lead again to undo the monopoly that resulted. You can call it the "Worldwide Satellite Freedom Act of 1994."

Three actions are necessary: first, the Congress should send a message to the FCC and the Departments of Commerce and State to keep Intelsat from further expansion, while its future structure is being debated; second, the Congress should enact legislation to remove Comsat's privileges and immunities and ensure that Comsat is regulated effectively; and third, the Congress should create the legislative framework for a future, privatized Intelsat structured so that it cannot continue to abuse the dominant position that years as a monopoly treaty organization has granted it.

PRESERVE THE COMPETITIVE *STATUS QUO* WHILE A FUTURE STRUCTURE FOR INTELSAT IS BEING DEBATED.

I would like to reinforce what Chairman Markey and others have noted about the special role of satellites in the Global Information Infrastructure. The principles of the GII that Vice President Gore articulated at the Buenos Aires conference—private investment, market competition, market access, global service, and flexible regulatory regimes—are the very elements that competition from PanAmSat and regional satellites has helped bring to the world satellite market. You will see those goals increasingly met as competition to Intelsat increases, but danger is that Intelsat will move now to stifle this growing competition, while the world debates Intelsat's future structure.

As country after country around the world has moved from a monopoly structure for its telecommunications industry to one that relies on competition to achieve public benefits, they all recognize that, at a minimum, the former monopoly company must be kept from becoming even more dominant while new entrants are trying to establish themselves. The same philosophy should guide the Intelsat transition that is underway now, but what is happening is just the opposite. Intelsat and Comsat, recognizing that their treaty-protected status is bound to end, are seeking to exploit their privileges and immunities to the fullest extent possible, hoping to give themselves an unbeatable lead in future competition.

Some historical perspective is in order. From the first moment that it appeared likely that PanAmSat would proceed with its business plan, Intelsat has targeted our markets and our customers. Of course, we could not compete with them for their public switched telephone traffic—almost 90% of their business when we started—so it was open season on the only business that we could do: video and foreign domestic transponder sales. By literally dumping transponders at predatory rates into Latin America, Intelsat took away our foreign domestic transponder market. We battled them, and won, for the video customers because we understood the customers better than they did.

Later, Intelsat targeted the trans-Atlantic video market by—for the first time in its history—acquiring a special-purpose, all Ku-band, all video satellite called Intelsat K. We tried to stop it and failed. Now Intelsat is acquiring what they call "land mass" satellites—another radical departure from Intelsat's original mission—to challenge PanAmSat and other private companies who are risking their all to provide service to the Asia Pacific region. Last month, Intelsat was prepared to up the ante once again by entering the direct to home video market in Latin America and Northern Europe with two powerful new satellites called Intelsat Kx.

I might add that the proposed coverage patterns for the Latin American Kx satellite matched our PAS-3 patterns exactly. Under the still-enforced Article XIV consultation rules of the Intelsat Treaty—which require a competitor to get Intelsat's permission to go into business—PanAmSat was forced to reveal all of this technical information to Intelsat, who then copied it to compete with us. We have no recourse against them for this action because of their immunity, which I'll get to.

Because the Intelsat Kx was such a departure, even from the creeping commercialization that had gone on before, the U.S. and others raised questions about it and Intelsat's management was instructed to go back to the drawing board to justify the acquisition. But the project is by no means dead. It's scheduled to come back at Intelsat's September meeting and, if the Kx is still unacceptable, they will consider getting another Intelsat K-type satellite.

Incidentally, they are now offering six-months free use of unused capacity on Intelsat K to anyone who will sign a long-term contract, so it can't be that successful. Why are they planning to get another one? Will they then offer free or predatorily-priced service on that one too, the way they targeted PanAmSat's foreign domestic transponder sales?

Once Intelsat is privatized and the playing field is level, PanAmSat and others will compete with them for the benefit of all users of satellite services. We just cannot compete in our most significant markets with a company that is beyond the reach of law and regulation. Intelsat can be expected—indeed it has every incentive—to keep pushing the envelope and entering new, competitive services while it still enjoys all its treaty privileges. Intelsat is not going to stop itself from taking unfair advantage of its present position. The U.S. must take the lead now to preserve at least the present competitive *status quo*, before Intelsat and Comsat use their treaty privileges and immunities to preempt competitive services and dominate the GII.

This can be done with legislation that directs the three agencies that appeared before you this morning to convey to Intelsat's Board of Governors that the U.S. opposes all further competitive incursions by Intelsat until it is privatized. If you want to see the privatization process move quickly, this is the way to do it. Otherwise, you will be having hearings every year asking us all how the privatization process is going.

THE CONGRESS SHOULD ENACT LEGISLATION TO END COMSAT'S PRIVILEGES AND IMMUNITIES AND TO ENSURE COMSAT'S EFFECTIVE REGULATION BY THE FCC.

Intelsat and Inmarsat are the only treaty organizations in the world that are majority-owned by private companies and that compete in the commercial marketplace, yet are legally entitled to a full range of governmental privileges and immunities. If diplomacy dictates that Congress should not enact legislation to strip Intelsat itself of its privileges and immunities, the Congress can, at least, act to take those privileges and immunities away from Comsat. After all, even U.S. diplomats do not have diplomatic immunity in their own country.

With Comsat, the problem is that the U.S. courts have held that it—a private, U.S. company—is entitled to the same level of privileges and immunities when it is acting in its signatory capacity, which Comsat seeks to define as broadly as possible. Application of Intelsat's privileges and immunities to Comsat is a historical accident that has no justification today and the Congress can take swift corrective action.

Making matters worse, these privileges and immunities are exceptionally broad in the first place. In essence, full diplomatic immunity has been extended to a commercial operation. Even truly foreign government-owned enterprises do not get this kind of immunity under the U.S. Foreign Sovereign Immunity Act, let alone the private foreign-owned corporations, who, together with Comsat, make up almost 60 percent of Intelsat's ownership; that this broad immunity should be applied to a private U.S. company that is an aggressive competitor in the international telecommunications market is worse than an injustice, it is an outrage.

Comsat claims, at least before the Congress and government agencies, if not the courts, that these privileges and immunities are inconsequential and really get in the way. In concrete terms, let me tell you briefly what these privileges and immunities actually mean to Comsat and Intelsat.

- in court, in our antitrust case against Comsat, Comsat argues that the privileges and immunities prevent the introduction of evidence about the 1984 boycott resolution, in which Comsat participated, pursuant to which all of Intelsat's owners agreed to refuse to deal with PanAmSat. Of course, if we were suing any other company, this would be the smoking pistol, but, if Comsat has its way, the jury will be forbidden to consider it.

- in the financial markets, the legal and tax immunities allow Intelsat to secure financing at rates that are as much as six points below the interest rates PanAmSat pays to borrow money and to flow these benefits through to Comsat and it other owners. In the past two and a half years, Intelsat has used its triple-A bond rating to secure Eurobond and other private external financing, which with last month's decision to go out for another $200 million brings the total to almost one billion dollars—all the while guaranteeing its owners a rate of return that is now 20%.

- in the transponder marketplace, Intelsat uses those funds to build additional transponder capacity equal to the amount it currently has in orbit on its 21 satellites. With so much excess capacity, Intelsat can do these 6-month free service deals, that I mentioned, and Comsat uses them to "lock in" customers to long-term contracts on those new satellites—leaving its competitors slim pickings.

- at the International Telecommunications Union (ITU), the privileges and immunities mean that Intelsat has special access to the rapidly shrinking number of valuable orbital slots. Intelsat has increased the pace of its filing for slots and even has taken to filing for slots right on top of ours. We, of course, have to go through the time-consuming and costly FCC regulatory process to get slots. For example, it took us four years and hundreds of thousands of dollars in filing fees and legal costs to get the final license for the satellite that we launched last month. Now we'll have to pay substantial annual fees to the FCC on this satellite and our others ($65,000 per year per operational satellite)to help defray the FCC's costs of administration. Comsat avoids this application process altogether.

- at the FCC itself, Comsat gets further regulatory breaks, in addition to freedom from the cost and delay of the application process. For example, Comsat is not required to have a separate subsidiary for those of its

> Intelsat and Inmarsat lines of business that are competitive and those that are still monopolies. This facilitates Comsat's ability to cross-subsidize its rates for competitive services with profits from its monopoly services. Furthermore, the FCC has never "pierced the Intelsat veil" when it looks at the cost justification for Comsat's rates. The FCC looks only at the reasonableness of the Comsat mark-up of those rates. So, if Intelsat gives Comsat a predatory rate to work with, the FCC doesn't examine it. And Comsat had the nerve recently to ask the FCC to lessen regulatory oversight over the company.

There is no reason that Comsat should have any of these privileges and immunities. Comsat will tell you that the U.S. just cannot unilaterally abrogate the Intelsat treaties and agreements that are the source of the privileges and immunities, but there is nothing that says the Congress and the Executive Branch have to keep those privileges and immunities for Comsat. It would be preferable, of course, to reach agreement with other Intelsat-member countries to amend the treaties and agreements to eliminate Intelsat's privileges and immunities. Intelsat will make sure that this will be a long, drawn-out process. The Congress can and should move now to withdraw the privileges and immunities from U.S. law and regulation that have been granted to Comsat. This reform is long-over due.

A FUTURE PRIVATIZED INTELSAT SHOULD BE STRUCTURED TO PREVENT ABUSE OF ITS PRESENT DOMINANT POSITION.

Once the U.S. government preserves the competitive status quo and deals with the immediate issue of Comsat's regulation, we can turn to the question of privatizing Intelsat. As I said, there's a big difference between "privatization" according to Intelsat and Comsat and privatization according to the rest of the world. We'll be wasting our time if all that we do is to take Intelsat in its present form, wave the privatization wand, see them incorporate as an Antilles corporation, and let them go on with business as usual. This could be worse than what we have now.

Even without any of the privileges and immunities that Intelsat now enjoys, it will have a dominant position in the international satellite market. For example, Comsat has locked many customers into long term contracts; Intelsat has the best orbital slots tied up; Intelsat has, and will continue to have, because of its crash construction program, a huge overhang of excess capacity purchased with cheap money that can be used to undercut the pricing of all other competing satellite systems.

Added to this is the fact that most of Intelsat's signatories will hold bottleneck power to control public switched telephone traffic in their own countries for years to come.

Some of these advantages are the fruits of Intelsat's years as a monopoly treaty organization and others are the ill-gotten gains of Intelsat's expansionist and anti-competitive activities over the past few years—grabbing for all the brass rings before the treaty merry-go-round stops. It would be dangerous simply to privatize Intelsat and turn a blind eye to its market power.

A privatized Intelsat should be restructured into several separate companies. The present assets should be divided among those companies, with any one company not allowed to own or control more than two in-orbit satellites, and an equal number of future orbit slots, in each ocean region. All additional unused slots should be turned back to the ITU. This would give each Intelsat successor company, at the outset, six in-orbit satellites and six expansion slots—a total of four orbital slots in each ocean region— which is a generous helping of slots by anyone's standards. Additional slots could be acquired on an equal footing with the rest of us. This would make each Intelsat successor company an effective competitor in the global satellite marketplace.

Comsat and other signatories would be given stock in each of the new separate companies, each in accordance with their then current ownership shares in Intelsat and they could trade these shares initially among themselves, but no single signatory could have a controlling interest in more than one successor company. Thereafter, the ownership shares in each of the successor companies could be sold to outside parties or even offered on the public market.

On the regulatory front, the end result would be that the Intelsat successor companies would be regulated by the U.S. and other countries to which they seek to provide service in the same way as other commercial communications entities are regulated now. In services in which these successor companies hold dominant market positions, they would be regulated as any other dominant carriers are today.

CONCLUSION

Congress created the Intelsat/Comsat monopoly, and Congress can uncreate it and ensure a transition from that monopoly to a fully competitive marketplace, that would extend the benefits of U.S. competition around the world.

Thank you.

Mr. MARKEY. You, Mr. Daggatt, are our final witness. And we look forward to your testimony.

STATEMENT OF RUSSELL DAGGATT

Mr. DAGGATT. That is a hard act to follow.

Mr. Chairman, and members of the subcommittee, on behalf of Teledesic we appreciate this opportunity to testify here today. I should begin by stating emphatically that we endorse the administration's global information infrastructure initiative and the five principles around which it is focused. The administration has identified universal service as the most important of these principles and it is on that that we would like to elaborate.

Most of the people on this planet do not have access even to the most basic voice service. The problem is even more acute with respect to advanced information services. In this country the universal service principle that underlies telecommunications policy has been one of the great success stories of modern government. Over 94 percent of U.S. households have access to basic voice service; one of the highest percentages in the world and extraordinary for a territory as vast and diverse as the United States.

But as access to more advanced information services becomes increasingly essential to economic development and social welfare, there is a danger that the gap will increase between those who have affordable access to such services and those who do not. Perhaps the central telecommunications policy dilemma is how to reconcile the twin objectives of expanding the scope of universal service on the one hand and placing greater reliance on competitive market forces on the other.

This apparent conflict underlies the challenge we set for ourselves at Teledesic. The company was formed over 4 years ago with the objective of providing a means of affordable access to the widest possible range of advanced information services to rural and remote parts of the United States and the world that would not be economic to serve through traditional wire line means.

We seek to do this in a manner that is economic in its own right and at costs comparable to current wire line prices. That is a tall order. And the means we have proposed are ambitious—global constellation of low-earth orbit satellites similar to the model to my left—but that same kind of ambition is reflected in the inclusion of the universal service principle in the agenda for the global information infrastructure.

Satellite systems have a unique role to play in achieving that goal. Satellite systems can cover vast areas and provide service at a cost that is indifferent to location. Of course, there is great diversity even among satellite services and systems. Motorola deserves considerable credit for pioneering the concept of large low-earth orbit satellite systems with its IRIDIUM project. Others since have proposed similar mobile voice service systems based on LEO systems.

Teledesic has taken a different approach focusing on broadband services but also employing a low-earth orbit satellite system. For certain applications these LEO systems have inherent advantages including low transmission delay and the ability to use smaller terminals and antennas requiring less transmission power.

LEO systems with satellites moving in relation to the earth are inherently global in their coverage patterns. While these systems offer promise for the future of commercial satellite communications, they require global coordination of spectrum. If satellite spectrum is allocated randomly from country to country, no LEO system could operate.

As the leader in developing these innovative global satellite systems and the source of most of the technology underlying them, the United States should take a leadership role in the spectrum coordination process. Certainly, the United States should take care not to unilaterally authorize incompatible terrestrial services in the bands internationally allocated for satellite use. To do so would cripple the development of the U.S. commercial satellite industry. We would also be setting a bad precedent for other countries who might be inclined to ignore international spectrum coordination efforts in favor of more parochial domestic interests.

It is not a forgone conclusion that the United States will remain in the lead in these advanced technologies which have important commercial and defense applications. In fact, as a recent study undertaken by NASA and the National Science Foundation has documented, we are being challenged or surpassed in many of them.

With the end of the Cold War and ensuing cutbacks in government aerospace programs, a robust commercial satellite industry is essential to continuing U.S. leadership in these advanced technologies. We also must adopt dynamic regulatory structures that are more compatible with the pace of technological advance.

The U.S. lead in the satellite and information technologies will be meaningless if it takes years for the licenses of a satellite system. In today's world any competitive advantage is tentative and short lived. If we are slow, we will lose. And potential users in the United States and throughout the world will lose if the benefits of these systems are delayed or lost altogether.

The value of systems like Teledesic is measured by their ability to enhance the quality and meaning of our lives. The benefits to be derived from the advanced information services they enable are as vast as the areas of need to which they can extend.

Compared to the magnitude of the need, the role that any one company can play in the solution is small. But Teledesic is committed to doing its part and hopes to help address some of the most difficult and problematic areas of need. The administration deserves praise and enthusiastic support for its global information initiative. The goals are ambitious, but we will all benefit when they are achieved.

[Testimony resumes on p. 149.]

[The prepared statement of Mr. Daggatt follows:]

TESTIMONY OF W. RUSSELL DAGGATT
PRESIDENT
TELEDESIC CORPORATION

Mr. Chairman, members of the Subcommittee, on behalf of Teledesic, we appreciate this opportunity to contribute our views on the role of satellite-based technologies in the Global Information Infrastructure.

I should begin by stating emphatically that we endorse the Clinton Administration's initiatives to help bring about a more efficient and effective National and Global Information Infrastructure to extend the benefits of the information revolution to more of the world's citizens. We believe the Administration is right on the mark in identifying the five principles around which to focus that effort:

- The amount of the capital that will be required to build out this Global Information Infrastructure is unprecedented. To bring forth that capital, private investment must be encouraged.

- But capital alone is not enough. It must be employed efficiently. Real competition, with winners and losers, is the most effective means ever developed to ensure the efficient use of capital.

- Government has an important role to play in creating a **flexible regulatory framework**. Information technology is advancing at an astounding -- and increasing -- rate. Regulatory structures are much slower to evolve. To realize the full benefits of these powerful and fast-changing information technologies, governments must adopt dynamic regulatory models that can accommodate the pace of economic activity associated with these technologies.

- While many different models will coexist, the real potential of the information age will be embodied in open networks that provide switched connections between any two points on the network. **Open access**, on the model of the Internet, reduces the role of the gatekeeper and enhances the potential for anyone to be a content creator or many people to collaborate in creative activity. This open, two-way model is the one Teledesic has adopted and hopes to help extend literally to the farthest reaches of the world.

- The Administration has identified the fifth principle, **universal service**, as the most important. It is on that principle that we would like to elaborate.

UNIVERSAL SERVICE

Most of the people on this planet do not have access even to the most basic voice service. Over half the world's population lives more than two hours travel time from the nearest telephone. To cite a few examples: In India, with a population of 860 million people, there are about 6 million telephone lines, virtually all in a few large cities. More than 80% of the villages in Africa have no telephones. Indonesia has almost 58,000 villages with populations over 2,000 that have no access to telephone service.

Moreover, even where basic telephone service is available, the networks over which it is provided are frequently antiquated and in urgent need of modernization. For example, many of the telephone systems in the former Soviet bloc are half a century out of date and are unsuitable for connection to modern networks. The need for rapid growth in telecommunications infrastructure is reflected in China's aggressive expansion plans that call for the addition of 40 to 80 million lines by the year 2000 -- roughly equivalent to half of the installed base in the U.S.

The problem is even more acute with respect to advanced information services. In this country, the universal service principle that underlies telecommunications policy is one of the great success stories of modern government. Over 94% of U.S. households have access to basic voice service -- one of the highest percentages in the world and extraordinary for a territory as vast and diverse as the United States. But as access to more advanced information services becomes increasingly essential to economic development and social welfare, there is a danger that the gap will increase between those who have affordable access to such services and those who do not. Indeed, even in the U.S. there remain pockets of unmet need. Rural America still hosts millions of party lines and many local exchanges cannot reliably handle fax or other low-rate data traffic. The cost to upgrade these facilities to handle more advanced information services through conventional wireline means is prohibitive in many rural areas with their small, but widely dispersed customer bases.

Perhaps the central telecommunications policy dilemma is how to reconcile the twin objectives of expanding the scope of universal service, on the one hand, and placing greater reliance on competitive market forces, on the other hand. In the wireline model, you cannot do it affordably in the absence of some form of subsidy scheme. Wireline access is a function of distance from the local exchange and subscriber density. The longer the local loop and the fewer people it serves, the higher the cost of access. In this model, the cost of access for remote, rural subscribers can run 10, 20, even 30 times or more what it costs for the average urban subscriber. The trend toward deregulation is eroding the cross subsidies from low-cost subscribers to high-cost subscribers that help enable affordable access to remote areas. Yet the universal service principle remains firm and may be expanded to include at least some form of broadband service.

This apparent conflict between deregulation and universal service underlies the challenge we have set for ourselves at Teledesic. The company was formed over four years ago with the objective of providing a means of affordable access to the widest possible range of advanced information services to rural and remote parts of the U.S. and the world that would not be economic to serve through traditional wireline means. And we seek to do this in a manner that is economic in its own right and at costs comparable to current urban wireline prices. That is a tail order and the means we have proposed are ambitious -- a global constellation of 840 satellites in low-Earth orbit. But that same kind of ambition is reflected in the inclusion of the universal service principle in the agenda for the Global Information Infrastructure. Whether it is a legal mandate or simply a social aspiration, the scope and importance of the universal service principle will increase as information becomes increasingly essential to all those things we associate with quality of life, including education, health care, economic development and public services.

Many parts of the world that are not now wired never will be. Increasingly, the access technology of first choice for basic voice service is cellular. We see this in many parts of the former Soviet bloc, in China, Southeast Asia, Mexico and many other regions of the world. Cellular is cheaper and quicker to deploy than wireline access. But in the absence of a wireline infrastructure, access to broadband applications is problematic. To the extent that much of the world has either no access to basic voice service or has access to that service only through narrowband cellular systems, there will be a need for a complementary technology that can provide affordable access to broadband applications. In the developing world, these applications are not likely to be primarily for personal use but rather will be needed in institutional settings like hospitals, schools, government offices and businesses. In this context, we see Teledesic as complementary to terrestrial cellular systems in providing wireless information infrastructures in areas that would not be economic to wire.

THE ROLE OF SATELLITES IN THE GII

Satellite systems have a unique role to play in expanding universal service. Satellites can cover vast areas and provide service at a cost that is indifferent to location. Satellite terminals can be deployed much more quickly and flexibly than cables may be laid. Moreover, because satellite network assets are not rigidly and exclusively dedicated to particular users, utilization rates can be optimized over many users all sharing the same satellite resources. The comparative advantages of satellites generally increase with the distances between users and the variability of the traffic. Satellites also are invulnerable to surface calamities, such as earthquakes, floods, fires and hurricanes, that cripple terrestrial communications systems.

Of course, there is great diversity even among satellite services and systems. Motorola deserves considerable credit for familiarizing many people with the concept of a large low-Earth orbit satellite system with its pioneering Iridium project. Others since have proposed similar mobile voice services based on LEO systems. Teledesic has taken a different approach, focusing on broadband services using a higher part of the radio frequency spectrum, but also employing a low-Earth orbit satellite system. For certain applications, these LEO systems have some inherent advantages, including low transmission delay and the ability to use smaller terminals and antennas requiring less transmission power. With this approach, Teledesic seeks to provide global access to low-cost "bandwidth on demand" that can accommodate a wide range of services from basic voice channels to high-rate data transmission and interactive multimedia applications.

LEO systems like Teledesic and Iridium, with satellites moving in relation to the Earth, are inherently global in their coverage patterns. While these systems offer great promise for the future of commercial satellite communications, they require global coordination of spectrum. If satellite spectrum is allocated randomly from country to country, no LEO system could operate. As the leader in developing these innovative global satellite systems, and the source of most of the technology underlying them, the U.S. should take a leadership role in the spectrum coordination process. Certainly the U.S. should take care not to unilaterally authorize incompatible terrestrial services in the bands internationally allocated for satellite use. To do so would cripple the development of the U.S. commercial satellite industry. We would also be setting a bad precedent for other countries who might be inclined to ignore international spectrum coordination efforts in favor of more parochial domestic interests. It is not a foregone conclusion that the U.S. will remain in the lead in these advanced technologies, which have important commercial and defense applications. In fact, as a recent NASA/NSF study has documented, we are being challenged or surpassed in many of them. With the end of the Cold War and ensuing cutbacks in government aerospace programs, a robust commercial satellite industry is essential to continuing U.S. leadership in these advanced technologies.

Since we were invited to offer policy recommendations, we would like to offer one more: We must adopt more dynamic regulatory structures that are more compatible with the pace of technological advance. The U.S. leads the world in information technologies, in general, and satellite technologies, in particular. But that lead will be meaningless if it takes years for the licensing of a satellite system. In today's world, any competitive advantage is tentative and short-lived. If we are slow, we will lose -- it's that simple. And potential users, in the U.S. and throughout the world, will lose if the benefits of these systems are delayed or lost altogether.

BENEFITS OF ADVANCED INFORMATION SERVICES

Of course, the value of systems like Teledesic ultimately is measured by their ability to enhance the quality and meaning of our lives. The benefits to be derived from the advanced information services they enable are as vast as the areas of need to which they can extend. With universal access to interactive broadband capabilities, information can flow freely between people, creating wider communities of interest and support. In the field of health care, for example, doctors and other caregivers can consult with specialists thousands of miles away, share medical records and x-rays, relay critical medical information during epidemics, distribute globally the latest medical research, ensure priority routing of medical supplies during disaster relief programs, and provide remote instruction in nutrition, sanitation, and prenatal and infant care.

In some instances, where remote access to x-rays or other diagnostic images is required, broadband capability can be a matter of life or death. For example, transmission of an x-ray image over an ordinary 9.6 Kbps phone line would take more than 20 minutes, while the same image could be transmitted over a Teledesic T1 (1.544 Mbps) channel in less than 8 seconds. The bandwidth also determines the video quality that can be supported by a communications channel. Many medical specialists will not perform critical care diagnosis unless the video signal is at least of the VCR quality that can be supported by a T1 channel.

In the area of education, the Administration has adopted as a goal the interconnection of all classrooms to the national information infrastructure. Yet, as Chairman Hundt has observed, only one-eighth of all classrooms currently have telephone lines. Many of those unserved classrooms are a long way from the nearest trunk line and the cost of providing them wireline access would be astronomical. The interactive broadband capabilities of the Teledesic network, coupled with its wireless access technology, also hold the promise of delivering distance learning services to the most remote parts of the United States and the world, thereby offering meaningful educational opportunities to people who would otherwise be cut off -- either economically or geographically -- from traditional centers of learning.

CONCLUSION

Advanced technologies have revolutionized the way people exchange and process information in urban areas of the United States and other developed nations. But there is a broader unmet need. Today, the cost to bring modern communications to poor and remote areas is so high that many of the world's citizens cannot participate in the global community. Yet the benefits of the information revolution should be extended to all people, including those who do not reside in or near centers of commerce or industry, who do not have ready access to doctors, hospitals, schools, or libraries, and who are at risk of being shunted aside. Compared to the magnitude of the need, the role that any one company can play in the solution is nearly infinitesimal. But Teledesic is committed to doing its part and hopes to help address some of the most difficult and problematic areas of need.

The Administration deserves praise and enthusiastic support in its Global Information Infrastructure initiative. The goals are ambitious, but we will all benefit when they are achieved.

Mr. MARKEY. Thank you, Mr. Daggatt, very much.

Now we will turn to questions from the subcommittee. And the Chair will recognize himself.

Mr. Crockett, I would love to see COMSAT get into new lines of business so that you could compete against Mr. Galvin or Mr. Schwartz and others that want to enter these fields.

Would you please give us your view with regard to Comsat's willingness, during pending privatization, to place your new commercial ventures in a separate subsidiary without the privileges of INTELSAT and INMARSAT, such as preferential orbital slots, and in that way we can have all on an equal footing as they enter this new field.

Mr. CROCKETT. Thank you, Mr. Chairman.

All of COMSAT's commercial activities, unrelated to its role in INTELSAT and INMARSAT, are already in separate subsidiaries, and the FCC concerns itself with things like cross subsidization and structural separation to ensure that the safeguards are in place so that we don't mix the two.

Mr. MARKEY. So all of your commercial ventures will be in separate subsidiaries?

Mr. CROCKETT. Exactly.

Mr. MARKEY. OK. Fine.

Mr. Crockett, what would your timetable be for privatization?

Mr. CROCKETT. I would like to see it happen yesterday because INTELSAT's and INMARSAT's ability to compete is very limited in a competitive marketplace from a practical point of view, given the fact that these are treaty-based organizations, and I don't think the United States is likely to rip up the agreements and abrogate those treaties but will try to do it in a responsible way. It is going to take some time. And because of the large number of other countries that have to be consulted and coordinated with. It could take up to 5 years.

Mr. MARKEY. When would you be willing to give up your privileges and immunities?

Mr. CROCKETT. Our privileges and immunities—I have been waiting a long time to say this on the record—when COMSAT acts as a commercial entity, as a commercial carrier of communications, it has no privileges and no immunities whatsoever.

Mr. MARKEY. In terms of the key orbital slots and no protection from antitrust laws?

Mr. CROCKETT. With respect to us acting as a commercial entity, we are not immune to antitrust or any of the other laws of the United States. When we act as an instrument of the U.S. Government through the instructional process and the regulatory process, the courts have ruled that those activities are immune because we are carrying out, in essence, the instructions of the U.S. Government.

If the U.S. Government were willing to rip up the regulatory process, we are prepared to give up the privileges and immunities, as this relates to those activities, yesterday.

Mr. MARKEY. Is your DBS service in a separate subsidiary?

Mr. CROCKETT. We don't have a DBS service.

Mr. MARKEY. Will you put your DBS service in a separate subsidiary?

Mr. CROCKETT. If we had a DBS service, it would be in a separate subsidiary.

Mr. MARKEY. Mr. Anselmo, you have heard Mr. Crockett say that they don't have any privileges and immunities when he refers to any of their commercialized services.

Mr. ANSELMO. I have been battling that one in court for 5 years. I don't know if joining a boycott resolution that INTELSAT instituted amongst every member relieves them from antitrust liability. That is what they claim in court. And they claim a lot of things in court that you are not hearing here as far as immunity is concerned and antitrust violation and stuff like that.

Mr. MARKEY. Well, give us—we want to hear an example.

Mr. ANSELMO. And I could have predicted that it would take 5 years to end this INTELSAT treaty. And I want to emphasize that we have get on with it. They don't need 5 years.

Mr. MARKEY. Your insight with regard to the advantages which they enjoy as a result of the existence of that treaty when we are talking about commercial activities would be extremely helpful to us if you could give us some examples where you believe it gives them an unfair advantage in the marketplace.

Mr. ANSELMO. You can't just take COMSAT. We are discussing INTELSAT and they are the ones with the advantages and they are the ones who employ boycott. And I have heard talk here about how INTELSAT is liberalizing and they are giving us more phone circuits.

They could give us—imagine that some commercial outfit gives us permission—but they are giving us permission to carry voice telephone traffic; 100 lines at first and now it is 2,000 lines. They could give us 25 million lines and it wouldn't make any different because each of their signatories who control the voice traffic boycott us. So that is what goes on out there.

The game is played outside of here. The game is played by the PTT monopolies and that is INTELSAT, and they are the owners. These guys just play along for the free ride.

Mr. MARKEY. So your contention is that COMSAT gets the benefit of this international boycott of competitors' services and that the quicker we get out of INTELSAT, the quicker we just void that whole process and the sooner we have the competitive American services able to get into these marketplaces and the jobs come to America?

Mr. ANSELMO. Right, you say it better than I do.

Mr. MARKEY. Would you agree with that, Mr. Schwartz?

Mr. SCHWARTZ. Mr. Chairman, this is not my battle, but I will make a comment that I do believe that a competitive environment is a good one. It has always served all of industry in the United States well. The initiatives to a privatization, I think, should be welcomed.

I don't know the details of this particular argument and whether or not it takes 5 years or not in order to achieve that, but I would certainly endorse a government initiative to reach a truly competitive, level playing field where all commercial opportunities would be available to all American companies.

Mr. MARKEY. Very diplomatically stated Mr. Schwartz.

One of the problems I know is that you make satellites for various companies, and depending upon, you know, the time of day and the conversation which is taking place, any of the people sitting next to any of the other people at this table may be the closest ally or most bitter enemy any of you have ever known. And I appreciate the complexity of this spaghetti-like set of relationships that all of you have developed.

And perhaps all we are doing is putting a few meatballs on top to make it interesting, and at the end of the day you are all inextricably intertwined. But clearly, our objective is to try to advance an agenda that will have more separate identities, that allow each of you to pursue them without fear of running into some conflict with any of the other entities.

Mr. SCHWARTZ. Mr. Chairman, may I comment on the remark that you just made?

Loral Corporation does service the current INTELSAT requirement for satellites. We are building the INTELSAT 7 series. We are the largest company serving satellite service design and manufacture for telecommunications. And yet we have only had one customer in the United States and that is INTELSAT.

I would like to believe that Mr. Anselmo would be a customer of ours in the future for this kind of service as well. So I welcome that kind of competition from that point of view, opening up the gates so that all American industry will be on the level field, where we can be competing against each other without restrictions and without hidden compensations would be a very valuable thing. And from that point of view, I recommend—I endorse what Mr. Anselmo is doing. I can't get into the details.

Mr. MARKEY. What sort of protections do you think are needed in order to ensure that there is competition in all of these marketplaces? You are not all necessarily in the same marketplace, but is there a generic set of safeguards you would like to see in place that ensures the future viability of competition in each one of these markets?

Mr. SCHWARTZ. Without being intimately involved in the issues that Mr. Anselmo raised, I believe that lowering the barriers and opening up the marketplace—privatization being one mechanism and lowering whatever benefits that one party has as regarded the others—would be beneficial to all of us.

Mr. MARKEY. Mr. Galvin, is there a set of generic safeguards that you would like to see put in place to ensure that each of your companies are able to implement your vision?

Mr. GALVIN. Mr. Chairman, I would echo the spirit of moving towards a greater level of competition. I would ask that rather than taking the specific time, having at one time putting in the list of safeguards and very specific items that we allow subsequent to this hearing, to submit again the detail of those things we would recommend, and that may be a productive way for us to participate in this dialogue.

Mr. MARKEY. Let me ask Mr. Daggatt, what does your vision of a broadband service bring to this discussion? What is the difference between what it is that you are proposing and the others at this table are giving hope to the rest of the world that might be in place by the end of this decade?

Mr. DAGGATT. Our focus is not mobile service per se but rather an extension of the terrestrial broadband infrastructure to areas that would not be economic to wire. We believe that the demand for band width will continue to explode, driven by the same factors that have led to just astronomic advances in the performance to cost ratio of microprocessors and computing memory.

Mr. MARKEY. You deal then somewhat with Mr. Anselmo's statement about universal access; you will make it more likely that there will be universal access in these more remote regions?

Mr. DAGGATT. Yes, and the objective is to do it at costs comparable to current urban wire line prices and to make it a much more accessible and much broader kind of service availability. And also then at the same kinds of service quality levels that one would expect from a terrestrial infrastructure, the bid air rates, and the latencies that would be comparable to a wire line infrastructure.

Mr. MARKEY. So this would be something that would be, for the half of the world that doesn't have access to local phone service, a way of quickly implementing a broadband capacity that would substitute for the construction of a fiber optic network across that country or region of the world?

Mr. DAGGATT. Right. It helps solve the chicken and egg problem in economic development. No area of any country is going to be able to keep pace in economic development without access to an advanced information infrastructure. And yet it is not economic to put that kind of infrastructure in place if the economic base isn't there. This would be a ubiquitous infrastructure that solves that problem.

Mr. MARKEY. Now, you brought along your model over here. Could you explain to the subcommittee what you have, and then I will complete my time and recognize the gentleman from Texas.

Pull that out so that the subcommittee members can see what Mr. Daggatt has brought.

Mr. DAGGATT. It is just intended to show what one of the satellites would look like with the antenna panels extending out like the petals on a flower with the various antenna array panels under that. There would be a solar panel that deploys, but I chose to leave that undeployed today.

Mr. MARKEY. You would launch some 800 of those; is that correct?

Mr. DAGGATT. Yes.

Mr. MARKEY. But again that is just your vision. I know IRIDIUM was originally going to be 77 based on the 77th element of Mendeleev's chart and now they are down to 66.

Let me turn and recognize the gentleman from Texas.

Mr. FIELDS. Mr. Crockett, I remember your testimony just a moment ago, you said if you could privatize, you would privatize yesterday. And then also during your testimony you said that it was essential that our government come to a decision or at least articulate a position, if I remember you correctly, you said mid-September.

I know you were sitting in the audience, and you heard Secretary McCann say that there is a decision or the articulation of a position that that would probably occur a time prior to December. What happens if the government doesn't have a decision by mid-September?

Mr. CROCKETT. The United States has always played a significant leadership role in international communications around the world and the INTELSAT and INMARSAT organizations were a creation based on U.S. know-how and U.S. willpower to bring those advances to the entire world.

The world today, the countries around, are waiting for the United States to enunciate its position with respect to privatization and incorporation of these two organizations, and that includes large countries, small countries, advanced countries and lesser-developed countries. And since the assembly of parties for INTELSAT will meet in October, some decision, some articulation I would hope would come out in time for us to provide that leadership role leading into this meeting.

In the absence of that, and if the decision-making process were such that it were not until the end of the year or later, the United States would be abrogating its role as the leader in telecommunications policy, and the meetings would not be as successful or satisfactory as I would like them to be. Which gets back to the point that you started out with, the timeliness with respect to privatization will take place, in many cases, depending on the U.S. leadership role to effect that. To the extent that anything can be done to expedite the review process in the United States, that would be helpful and would lead to I think more productive October meetings and ultimately to quicker privatization of these organizations.

Mr. FIELDS. Let me also ask to you amplify, and I am playing off of my memory, but I believe you also said there was a possibility that the initiative would be lost. What did you mean by that? Did you mean that perhaps the initiative of privatization would slow? Stop?

Mr. CROCKETT. You have a very good memory, Congressman. It would be slowed for sure. In the absence of a strong leadership position at the INTELSAT assembly of parties where all or most of the 133 countries will be represented, other initiatives that could lead to no change in the organization, and I can assure you on the part of many smaller countries and countries that still have, in Mr. Anselmo's words, PTT mentalities, the initiative for change isn't there. And it will be by the larger more responsible parties and, in fact, the United States through its leadership role, we could get the ball rolling on this and effect change a lot faster by being the leader and making it happen in real time.

Mr. FIELDS. And I don't want to put words in Mr. Anselmo's mouth, and I could not do it as eloquently as he has enunciated it, what if we did just tear up the treaty; what would happen?

Mr. CROCKETT. There are, even though it might not seem that way, there are many countries of the world that are totally dependent on INTELSAT at the current time for their international communications. I think it would be irresponsible to abrogate a treaty under the circumstances.

There is a public service role that these organizations provide in terms of universal service, safety of life at sea, in the air, that I think it would be irresponsible to rip up.

Mr. FIELDS. I really have two remaining questions.

After a privatization, should there be some international entity that oversees telecommunication policy? And if so who should it be? How should they operate?

Mr. ANSELMO. We should do it. The U.S. Government. Not COMSAT, not INTELSAT, none of that. The government should set it up since we have the most liberal ideas of what communications should be, we ought to take the lead and say we are going to regulate it. And we can.

Mr. FIELDS. But do we act in concert with other countries?

Mr. ANSELMO. Yes, yes, be nice to everybody, just take the lead. Do it.

Mr. FIELDS. Shouldn't there be a formal entity set up?

Mr. ANSELMO. They could take 10 years setting up one of thee monsters like INTELSAT again.

Mr. SCHWARTZ. Considering the fact that there is a limited spectrum and there is a tremendous capacity drainage, the fact is we are all arguing here about what kind of allocation we are going to have for the spectrum. There has to be some kind of policeman or traffic cop who makes sure that the public interest is well taken care of.

So I think we are not going to just open up, I would hope, the area of telecommunications to private industry and the marketplace without some sort of oversight to make sure that the public interest is well taken care of.

I think that does not translate into, however, an overbearing bureaucracy that looks at every schedule and every investment criteria that private industry wants to make in this area. I think you need a balance, and I believe we can take care of the public interest and allow for private initiative but it means changing some of the structures that we have now.

Mr. MARKEY. Will the gentleman yield?

I think, Mr. Galvin, you are as well experienced as anyone in the field of trying to get foreign governments to cooperate with opening telecommunications marketings. Japan is our friend, for God's sake, and it takes all of our efforts, our government's efforts, to open up one little niche for one company.

And I think that the point that Mr. Anselmo is making here is well taken, that if we waited for 113 countries to all come around to the point of opening up their markets while America has the lead now, then we lose our opportunity to a large extent. And I am wondering what your observations might be on that, given your rich experience with the Japanese Government.

Mr. GALVIN. I will be happy to comment.

One fundamental premise we operate on in telecommunications is that the rules often determine the outcome of the game. There is a role for regulation in the arena of spectrum and in some other areas of regulation. Including some competitive policy.

For example, in the area of spectrum relative to your questions earlier, Mr. Chairman, in the concept of whether the protections of how you write the rules, INMARSAT was allocated a large block of spectrum in its monopoly mode and if it is allowed to, without the ability to bring this back into some competitive arena like we are now sorting out with this discussion on LEO's, they could have an unfair advantage should that not be brought again to the open process and be competed again, so to speak.

But there are entities like the ITU, and others, that do need to get together around the world, as Mr. Schwartz artfully articulated, to coordinate the allocation of large blocks of spectrum to LEO's or to PCS blocks so that around the world we have standard blocks of spectrum to operate across global markets. That allows high volume unit manufacturing to make place and cost to go down on the behalf of consumers, and that is very good for the consumer and very good for manufacturing businesses here in the United States.

Mr. FIELDS. Mr. Crockett?

Mr. CROCKETT. As far as international bodies, the ITU does many of the things that I think you would like to see done. I would recommend against Mr. Anselmo's notion that the U.S. Government ought to do it.

One of the single biggest concerns the rest of the world has in the privatization of INTELSAT and INMARSAT is a concern that, for example, if INTELSAT stays based as a Washington area organization, that they will somehow be under the tutelage or the regulation of the FCC. And if that were to be the case, you would find them not subscribing to privatization. That is, by the way, at least at this point, probably the second largest concern on the part of all the other members on who and how you regulate an international body. Our way of doing things is not always best or right and I think you have to be careful there.

Mr. DAGGATT. The United States is in the lead in these technologies. But that lead is short-lived in today's world and the advance of technologies.

Anything that makes the system more dynamic is going to be in the U.S. advantage. And I think other countries will be looking to how we dispose of these issues; how expeditiously we act on this and the manner in which we act on them in dealing with them themselves.

Mr. FIELDS. Mr. Anselmo?

Mr. ANSELMO. I just would like to see if I can emphasize here because I hear all of this talk about the little countries that supposedly INTELSAT has saved from falling off the earth—if you tore up the treaty, nothing is going to happen. They are still going to use INTELSAT services because that is all they have. That is all there is to use so they will continue to use it. It just will not be under treaty status. It will not be with all their awful monopoly controls and the rest of it.

So I just don't understand that we have to go convince them to do this. Say this is our policy. This is what we are doing, and if you want landing rights in this country, you better make sure we have got them in your country. And just do it. All the rest of this stuff is just highfalutin—they ride horses, don't they?

Mr. FIELDS. One last question, if I can get a quick answer. I appreciate the chairman's indulgence, but it seems to me that all of you are dependent on what our negotiating team does in preparing for bilaterals and negotiating bilaterals, preparing for WRC and negotiating particularly WRC-95 coming up. Just a quick assessment of how our team does, and I asked the question earlier this morning to the government panel, if there was any need for structural change, policy change?

Quickly, Mr. Daggatt, and let me tell you the perspective that I am asking this question. It seems to me this is one of the real instances where our government needs to be a partner, not favoring one company or industry over the other, but for our country that we ought to be a partner with particularly those of you who are on the cutting edge, instead of being an adversary.

But you have testified today that sometimes when the government doesn't act or drags its feet that that, in essence, puts you at a competitive disadvantage. I would like for you to be as candid as you possibly can with that particular perspective in mind.

Mr. DAGGATT. Well, I would say generally that the reception that we have had from our government has been very positive. And we appreciate that.

But I would second the point that you made. It is a very difficult, time-consuming and complex process to try to coordinate the spectrum and the landing rights, the access, in 150-plus countries around the world. And the United States stands to benefit as does the world, from the deployment of these global satellite systems.

But it is going to take an aggressive advocacy role on the part of the U.S. Government. And I think that the administration really should be applauded for the focus that they have given this with the global information infrastructure and the principles they have identified really are the key ones, we believe.

Mr. CROCKETT. If you ever get a chance to go to Switzerland to the ITU and see the computer equipment they have to try and dynamically allocate at least on a theoretical basis the spectrum available for mankind, and understand that those computers basically have to run hours, on top of hours, on top of hours, you will begin to appreciate the magnitude of the problem of spectrum and the fact that at least given the desires on the part of various countries and various constituencies and existing technology, how darn difficult it is. It is a zero-sum game, and it is very difficult to reach an accord that anybody can agree on.

The U.S. role in that process, and the team we field over there is outstanding and they do one whale of a job. We don't always get our way or the result as we want because of the problem or the dynamics of the situation, but they do an excellent job.

Mr. GALVIN. I would comment that Motorola has been involved in this process with the creation of the two-way radio business and all the regulations over 40 or 50 years, and then creating the paging industry and essentially promulgating the cellular industry around the world. It is a complicated process when new technologies force regulations and people's thinking to change. That requires time and education.

Some of the institutions that are in place, WRC and the ITU, have in the recent era served us reasonably well. We have gotten appropriate blocks of spectrum with some complications note by Mr. Schwartz with GLONASS and the Russians, but these are complications that get sorted out because of this complicated world.

It is an ongoing dialogue of bringing new technology to telecommunications that takes time, and our issue today, we are really dealing with the U.S. regulatory issue. And that is the rules that were written in 1934 don't necessarily apply to those in 1994. And we think that those can be modified because they are within our control and judgments can be made in a competitive environment by interpreting the law appropriately, we believe, to simply move ahead as we fix the long-term problems.

Mr. SCHWARTZ. I quite agree. First of all, I think that the people who are representing us internationally are doing a good job.

The problem is one of timing. I think the speed with which we reach conclusions is dreadful, and it inhibits industry and investment. I heard this morning some reference to auctioning, for example, of international services now. And that affects Mr. Galvin and all of us, perhaps. That would strike fear into our hearts. Not because there is anything wrong with raising money for the U.S. Government but it is a different agenda.

What this government should be doing is encouraging capital to go into the telecommunications marketplace to bring jobs to this country and services worldwide. The auction process will inhibit that in many different ways. It is another different level—to answer your questions, Mr. Chairman—that I would like to see removed; in terms of governmental restriction, it is not adding another level.

Auctions will impede U.S. companies from going forward in the LEO area for MSS service, because other countries without auctions will allow their industry to get ahead of us. And, in fact, if they begin to be encouraged by auctioning off these spectrums, for these licenses they will do the same thing. It will mean we will lose the initiative worldwide in order to bring the service.

I think it is something you ought to be careful about. It is a level of governmental intrusion that I would hope would not formulate and take place or take a long time to dispose of.

Mr. ANSELMO. You don't want to hear from me again. I don't have any problems with the government. The State Department is a little slow because they are afraid to hurt anybody's feelings anywhere. We want to discuss everything too long and too much for them. But if the State Department would just agree to ripping up that cockamamie treaty now, I would be happy.

Mr. MARKEY. The gentleman from Texas, Mr. Hall.

Mr. HALL. Thank you, Mr. Chairman. I would make this first observation, Mr. Chairman.

If I were running for public office and my name was INTELSAT, I would mark "doubtful" by Mr. Anselmo's name. I appreciate his quest for competition, and I certainly applaud the decision of COMSAT's President, Mr. Crockett, to call for a privatization of both INTELSAT and INMARSAT. I think real open competition can only be obtained by the first step that your recommendation is.

My question is based—well, let's assume that INTELSAT and INMARSAT are privatized in the next 5 years or so. Some would urge it to be privatized earlier than that or destroyed or torn up, or however you would dispose of it, but let's say that within the next 5 years privatization takes place. These entities have traditionally provided universal access to satellite services for every member country, no matter how small they are. Are most of the small countries members? Do we have the world pretty well covered?

Mr. CROCKETT. Thank you, Congressman Hall.

There are 133 user members of INTELSAT and almost all of the other countries, with maybe an exception of one or two xenophobic places, are nonmember users, so that everybody essentially uses the system. Yes.

Mr. HALL. In our recent debate over major telecommunications legislation, I think this committee and this chairman and this Congress worked hard to make sure that universal telephone service was protected for all Americans, including those who live in rural areas or hard-to-serve areas, and a lot of us have some of those areas.

Using the domestic market, I guess as an analogy, do you think smaller countries are going to have a problem of obtaining quality satellite service, and how are they going to be treated, I guess, is what I am asking?

Are there enough providers both satellite and fiber optic systems to serve everyone roughly on an equal basis?

Mr. CROCKETT. At least initially. And with INTELSAT and INMARSAT both subscribing to universal access, even in a privatized configuration, they will also have access to at least that system.

The privatization process should stimulate even more competition. And I don't think you were here at the time but we showed a chart which showed the tripling of fiber optic capacity, and the doubling of satellite capacity over the next 2 years. And that trend is going to continue and it won't be long before the benefits of competition will be available to every single inhabitant of the world in terms of communications.

Mr. HALL. Should there be some type of universal access fund to be established on a global scale?

Mr. CROCKETT. Well, I think that the fact that INTELSAT and INMARSAT are prepared to stipulate as part of the privatization process that universal access will be one of their tenets, that we won't have to worry about that being a problem.

Mr. HALL. I guess the other thing I would ask any member of the panel; with the agreement, obtaining the agreement of all of these countries with respect to INTELSAT, and INMARSAT, there is going to be a very time-consuming process, and with the rapid changes in the communications technology, I am wondering if the process of opening up the international satellite network is going to lag so far behind new technological development? How long do you think the process will take and what can you do to expedite it?

Mr. CROCKETT. I think I will go first on that since I already have the floor.

When I said I thought the process was going to take 5 years, it wasn't because I want it to take 5 years, it is just the practical problems and the time necessary to effectuate the process. If it could happen yesterday or next week, I would be a strong advocate of that.

What I know for sure is if we don't start the process, it will take even longer and that is why as long ago as 2 years ago I initially sounded the clarion call and called for privatization of these two international organizations in a public speech.

Two years ago, that concept, especially in the rest of the world, was considered radical to heretical, I would say. It is gaining momentum and is becoming a lot for mainstream, and the fact that we are discussing it significantly at this hearing, the notion of privatization, means that the process has moved a long way over the last 2 years and the same kind of debates are going on around the rest of the world, including in INTELSAT and INMARSAT. And I will say it once more; the one missing ingredient at this point, in my opinion, is the U.S. Government's leadership role which we have traditionally supplied to this process and anything and everything that can be done to have us fill that traditional role would be helpful in this process.

Mr. HALL. Our time is up, I would like to yield to Mr. Hastert.

Mr. HASTERT. I thank the gentleman from Texas.

I would like to ask, Mr. Galvin, one of the things that goes along with your testimony and that we talk about in this Congress is technology transfer—moving from military to domestic use of the technologies that we have. You talked about companies like Raytheon and McDonnell Douglas and Lockheed who are all over this country and probably involved in many of the States of members who are here. You have been involved.

What I am trying to look at, in terms of international policy, is that there is only so much we can do about international regulation. We can do something about domestic regulation. And it seems to me that that is a problem that you are struggling with now.

I would guess that in the putting up of 66 satellites and making telephone units to be part of this, you have a lot of money invested. People who have unique talents are involved in this research. What is at stake if we don't move in an expedited—semi-expedited manner to get it done so that companies like yours and others, Mr. Schwartz's company, can get on the road and get into business so we don't lose our initiative?

Mr. GALVIN. To answer the question in a short manner but with specifics, we requested a 319 waiver to issue orders to suppliers for long lead time items. And that means we are seeking to place orders on defense contractors that are seeking to make this defense conversion, both big and small, because there are many small suppliers that are there. And when we don't place the orders, we are not allowed to by the current government regulation and judgment, we then build large gaps in the delivery schedule for which those pieces are to come due in 1996 and 1997, which significantly slows down the delivery of the ultimate system.

It raises the cost, it raised the cost to the consumer, and keeps the program going longer and prohibits us from starting the second generation set of technologies. There are a variety of cascading increasing expenses that come as a function of not being able to get the 319 waiver or not having the rule of order done by July 1st, and the license issued.

Mr. HASTERT. I think there would be some extraordinary people involved, and if you are switching to people all over the world through 66 satellites; what happens when you put those folks on hold?

Mr. GALVIN. Well, we will find ourselves, if we delay much longer with that circumstance, they will either have to leave the companies that they are with, if there are no orders on them to pay their salaries, or they will have to be taken off of programs like these and dedicated to different programs and then the services may or may not be available.

Mr. HASTERT. And I would guess in countries possibly like Japan, Singapore, or Germany, there are people who are potential competitors, and we have the ability or at least the momentum now. What would happen to this momentum if we wait too long?

Mr. GALVIN. I think you are hinting in your question the issue that there are very able foreign competitors that if the U.S. regulation postpones us and takes away our competitive advantage, would ultimately beat us in the marketplace. And so everyone is looking at it like the three or four of us at the table who are investing money in these systems, if we slow down the process too much and don't maintain a relative lead, others will simply surpass as. And there are very able competitors in these regions to enter such business.

Mr. SCHWARTZ. Another additional element is that we are involved in this country in the downsizing of the defense establishment and conversion of very disciplined, highly trained, skilled people from military heretofore, and particularly in the space area into commercial endeavors. The projects that we are talking about here ranging from $1.8 billion to $10 billion. The aggregate may be $30 billion aggregate investment in telecommunications made in the United States, capital coming from overseas.

It is exactly the kind of thing that we should want to do. Raising that kind of capital will be inhibited if there is a delay in this program or there is an indecision about how we are going to go forward and holding on to the expensive crews, the people who are dedicated to this kind of service, is going to be difficult to maintain, and we may be able to not be able to hold to the employees that have dedicated themselves, not only in our own companies but at the subcontractor level that supports our efforts.

Mr. HASTERT. Listen, I appreciate your testimony. Thank you very much.

I think this just emphasizes that we need to move forward. There are some things we can't control sometimes on regulation and the international scene, but there are things that we can expedite and make sure that we can control, especially in this very, very important area of technology transfer. This country has done a good job over the last 35, 40 years in global communications. And we should not let that advantage lapse.

What we are going to do is take a 5 minute break until the chairman returns, and if you would wait, we will resume then.

Thank you very much.

[Brief recess.]

Mr. MARKEY. If we could, I would like to complete the hearing. If all the witnesses could please come back to their seats.

What I would like, if we could, is to ask each of our witnesses to please give us their 1-minute summation statement with regard to what you would like the subcommittee to keep in mind as we move forward on these issues. To give us the principles that you think should guide us and the issues that we should keep in the back of our minds as we deliberate with the administration over the next several months on how our government should proceed.

Let me begin with you, Mr. Daggatt, if I could. If you could give us your final words.

Mr. DAGGATT. Thank you, Mr. Chairman.

As the leader in developing these technologies, the United States needs to take a leadership role in the international regulatory process and, in particular, in the spectrum coordination process. Where there has been spectrum set-aside internationally allocated to satellite service, it is incumbent upon the United States to take care not to unilaterally authorize incompatible terrestrial services in the bands. To do so would invite other nations to do the same, and to ignore the international spectrum coordination efforts in favor of their own parochial domestic interests.

The global satellite systems are global in their coverage. And that requires global coordination of spectrum and they simply can't get built if spectrum is allocated randomly from country to country. That is the point that I would like to emphasize the strongest.

Thank you.

Mr. MARKEY. Thank you.

Mr. Anselmo, if you could give us your final thoughts.

Mr. ANSELMO. Well, I would just have to repeat what I have been saying, that for the first time we are in agreement, at least on the surface with COMSAT, that this should be rapidly privatized if they are going to do it, but really privatized. And I guess Congressman Hall was out to lunch when I was saying that I didn't want to hear anymore about universal service and small countries, and he went through a litany of questions to elicit from Mr. Crockett responses about universal service, which they have never given.

I am the only one who has ever provided universal service. And at the end of 9 months when the satellites are up—right now, we are covering two-thirds of the globe universally. Anybody can use our satellite. You don't have to kiss a minister's ass to do it. You just get an uplink and use the technology. That is not true under the INTELSAT system. The only one that can use it is the PTT monopoly.

You go to Brazil and if they want to do a remote telecast, up roles the PTT telecast unit and has padlocks on it and guards, and secretly they can go in and do it. That is the way the situation exists outside.

We put this technology in the hands of people like that. It is time to take it away from them. And nobody is going to suffer, because if for any reason COMSAT or INTELSAT thinks they cannot serve one of these small little countries, I will guarantee we will do it.

We will do it gladly; pick up any so-called "thin roof" they want to get relieved of, we will take care of that little bitty thin roof.

Thank you.

Mr. MARKEY. Mr. Schwartz.

Mr. SCHWARTZ. Yes, thank you.

I would just want to emphasize two items: one has to do with the mention today about auctioning the areas that we are talking about with respect to LEO's and MSS. I think that would be unfair, too inequitable, to now impose, expost facto, on industry who have already spent considerable sums of money in developing this kind of service. And in addition, it would invite foreign countries all over the world to impose also auctions that would make it prohibitive and delay.

And lastly, I think that if, in fact, we don't dispose of this issue, we will be inhibiting American industry from entering an international field of great promise. I would like to see some clarification of the auction process.

The second issue is that we would like to get on with the job. All of us have spent considerable sums of money. We are enthusiastic about the service that we are going to provide. We think the market is a good market. We are willing to take the risk.

I am hopeful that the waiver with respect to construction will not be delayed beyond the Chairman Hundt's date of October. I hope it is not delayed to January or later than that. We need to get on to it. We have responsibility to our subcontractors, to our people, and to our employees. Any help that we focus upon those issues would be very welcomed indeed.

Thank you.

Mr. MARKEY. Mr. Crockett.

Mr. CROCKETT. Thank you, Mr. Chairman.

As the largest owner of both the INTELSAT and INMARSAT systems in the world, in fact, our amortized cost in those two organizations approaches $1 billion, we have the most in a sense to gain from the status quo. And yet we are out leading the pack and advocating a change in the world in order terms of privatizing these two organizations in terms of eliminating the immunities and privileges, and so forth.

And you may ask why? And the reason is that we just see what started in the United States with the breakup of the Bell system and is now being carried on around the world in terms of commercialization, privatization, deregulation of the world's telecommunications order. And for our organizations to be successful in that environment, they have to change, too.

And my major point of emphasis is that traditionally the United States has played the leadership role in change of international telecommunications, and we need you, the U.S. Government, to help us play that traditional role in terms of privatizing these two organizations, and anything you can do to accelerate the process by which decisions are made near this country so that we can play our role as telecommunications leader would be helpful.

Thank you.

Mr. MARKEY. Thank you, Mr. Crockett. And you, Mr. Galvin.

Mr. GALVIN. Mr. Chairman, first a comment that we applaud and admire the work that you, Mr. Chairman, and your associates on the subcommittee are doing to promote robust competitive environments in all telecommunications segments. We will be happy to continue to work with you and your staff and associates in providing specific details on those recommendations as we go on.

Today, we come, particularly Mr. Schwartz and I, at the threshold of giving birth to a new industry. And the very specific issue at hand, and that is the mobile satellite business, and our specific issue today is that though we would already like to have 319 waivers. So that we could continue with our investments, that the FCC has committed to an October 15th date.

And to be very specific, within a 1 or 2 days of the report in order, we do need those waivers to proceed. At that stage we believe that we are already late. And that the commitment date which has been agreed to by the Chairman of the FCC, Mr. Hundt, that we have the license by January 31st, is also imperative.

So with your help and the support of your committee, if we could move ahead with that, we will give birth to a marvelous new industry for the United States which will benefit the world.

Mr. MARKEY. Thank you, Mr. Galvin, very much.

Today's hearing begins the subcommittee's review of the important issues raised by promoting competition in space. The testimony from the administration panel indicates that the three agencies are only now beginning to review the question of privatization and reforming the laws regulating COMSAT.

The second panel highlighted a number of issues also to consider. And as this process goes forward, I have the following observations: first, that COMSAT and INTELSAT should be privatized and meet PanAmSat and others on equal terms in the marketplace. PanAmSat and other separate satellite systems should be allowed to provide all forms of communication, including telephony. We should make sure that until that time comes, however, that INTELSAT is not permitted to cross-subsidize into areas where it is receiving competition in the marketplace. This will take the vigorous oversight of the government to ensure fair competition.

Second, we should do away at the earliest possible date with the privileges and immunities which COMSAT enjoys as U.S. signatory.

Third, we should explore the concepts of direct and competitive access to INTELSAT and INMARSAT to increase competition and to decrease the potential of anticompetitive behavior.

The fourth, that U.S. consumers must enjoy as much competition in satellite-based services as possible; in DBS, in voice, in data, in multimedia, the whole works. And I would encourage the Federal Communications Commission to look at how we can maximize the number of satellite competitors so that in fact we have many providers trying to lower prices and increase quality of service and that we don't wind up with a monopoly or duopoly or small number of competitors not committed to lowering price and access for consumers.

Fifth, before COMSAT and INTELSAT can be privatized, there must first be changes in the rules guiding COMSAT or else we risk locking in anticompetitive advantages for COMSAT that were bestowed by statute and not earned in the marketplace.

And sixth, I believe that for the United States to maintain its lead in these technologies, we must expedite licensing so that companies can plan effectively for the market.

You, Mr. Schwartz, and others have raised other issues that I think we are going to have to now deliberate upon, and work with the FCC and other agencies. We also have to be mindful of the fact that the State Department has historically subordinated the commercial interests of the United States to the diplomatic and defense objectives short term of a particular Secretary of State or Secretary of Defense or President.

It is important for us to reverse the priorities so that the commercialization of these technologies not be subordinated to the short-term diplomatic agenda of any Secretary of State unrelated to the advantages which will flow to the American economy and to the American consumers if we don't reverse that set of priorities.

And I think that today will be looked back on in this subcommittee as the day in which we began to intensively review these issues and to ensure that the companies sitting here are given all of the opportunities which they are going to need to be successful in the marketplace.

And especially you, Mr. Crockett, that we free you up as well to move forward, but commensurate with the other opportunities which other companies in the American economic system also should be given the right to enjoy.

So we want to work with each of you and the many others who are out there who are also the potential beneficiaries of this change of American policy and the opportunities which I think we can give to you.

And with that, this hearing is concluded. But only with the thanks to Steve Popeo, our aide who has helped us on these issues. He is leaving us after having worked with us intensively over the last year on this issue, especially to bring it to the public's attention.

I note the arrival of the gentleman from Colorado, Mr. Schaefer.

Mr. SCHAEFER. Two very brief questions.

Mr. MARKEY. And we will proceed as though the concluding statement of the Chair has not been delivered and recognize the gentleman from Colorado.

Mr. SCHAEFER. Thank you, Mr. Chairman.

I will be very brief.

Mr. Crockett, two quick questions. Could you tell me how the management of INTELSAT and INMARSAT as well as other signatories and parties have responded to your call for privatization?

Mr. CROCKETT. Well, it kind of interesting. Before you got here, I mentioned that I think the first time I advocated it was in a speech almost 2 years ago now, and it was essentially universally ridiculed as a bad idea. There was a question, why upset the status quo, things are good the way they are? Let's just keep it that way. Olav Lundburg at INMARSAT was actually the first to get on board, and it was clear to me not only because he wanted to go forward with INMARSAT, but he understood and recognized the competition that is coming very, very quickly from the gentlemen on either side of me. So that if he didn't get that organization changed, he would be at a significant disadvantage vis-a-vis Loral, Motorola and Teledesic.

In the process of getting conviction on the London side, I think the INTELSAT crowd began to see the wisdom in it also and their new director, Irv Goldstein, to the legislation along the way.

And as far as the signatory owners around the world, it was a mixed bag. Most were initially against it but are changing their opinion now. And even some of the more responsible smaller countries are beginning to understand that 100 percent of zero is zero, and if these organizations are not in a position to thrive in the year 2000 or 2005 or 2010, it doesn't make sense to have the status quo;

we better get the changes effected and take our chances in the new world order. Change is inevitable and we better recognize that and do something about it as opposed to trying to defend the status quo.

Mr. SCHAEFER. You say that the U.S. Government may make an affirmative indication to the rest of the world that we support privatization. I am certainly anxious that this government make that commitment and get the ball rolling on privatization. In what form should that affirmation take?

Mr. CROCKETT. Thank you. It gives me a platform one more time to say that there is a process already underway that will culminate in a meeting in Venezuela this October, the INTELSAT meeting of parties, and a working report will be delivered there which will debate the issue of privatization.

The U.S. Government has traditionally played a leadership role, a superpower leadership role in communications policy for the world and we need them to do that for this October meeting.

Anything that can be done to expedite the deliberative processes here in the United States so that the role or the position of the U.S. Government is enunciated sooner, would be helpful because that would allow time to help get the rest of the world—give them time to digest the information and be in a position to hopefully support that U.S. leadership position.

Mr. SCHAEFER. I thank the chairman for his indulgence.

Mr. MARKEY. The gentleman's time has expired.

With the thanks of the subcommittee and the hope that we can work together with you in the ensuing months and years, we will adjourn this hearing.

Thank you.

[Whereupon, at 1:00 p.m., the subcommittee was adjourned.]

[The following letters were received:]

COMSAT
CORPORATION

Bruce L. Crocker

August 8, 1994

The Honorable Edward J. Markey
Chairman
House Subcommittee on Telecommunications
and Finance
316 Ford House Office Building
Washington, D.C. 20515

Dear Chairman Markey:

Thank you for the opportunity to testify before the House Telecommunications and Finance Subcommittee on international satellite issues. From COMSAT's standpoint, the privatization of INTELSAT and INMARSAT is an extremely important step in the evolution of a competitive international telecommunications marketplace, and must be pursued expeditiously. We hope your expression of support for privatization during the hearing will prompt the U.S. government to assume a leadership role prior to and during the INTELSAT Assembly of Parties meeting in October.

You raised a series of issues in your closing statement, including a standstill on COMSAT's provision of competitive businesses, elimination of "privileges and immunities", exploration of direct and competitive access, and a review of the regulatory rules governing COMSAT. I would like to take this opportunity to share with you COMSAT's views on these issues.

Standstill

During the course of the hearing, references were made to the possibility, pending privatization, of a "standstill" approach being taken to COMSAT's future business activities or pursuit of "new market" opportunities. I agree with you fully that it is in the public interest to promote competition in the marketplace. The immediate question, however, is whether a "standstill" is necessary or appropriate given current market realities and regulatory policies.

There are those who would like nothing better than to see COMSAT virtually eliminated as a competitor. As formulated by PanAmSat, "standstill" would do precisely that, unjustly impeding COMSAT's ability to provide the very types of services that, in response to our customers' requirements, we have been providing for many years.

In fact, a principal rationale behind the separate system policy when it was adopted 10 years ago was to provide COMSAT and INTELSAT an incentive to engage in vigorous service and price competition.

Moreover, the underlying notion that the INTELSAT system should be restricted exclusively or predominantly to the provision of PSTN-type services simply ignores INTELSAT's traditional participation in worldwide video and data transmission for well over two decades and abruptly limits future services. This approach would seriously harm INTELSAT at the very time that fiber optics are siphoning off more telephony traffic. Today's telecommunications marketplace is extraordinarily dynamic and stands still for no one. Those who do not or are not permitted to respond are simply passed by.

As INTELSAT explores how (and even whether) to privatize, COMSAT is not seeking any unfair competitive advantage or protections and fully understands that this is an issue that regulators have a legitimate obligation to address. Indeed, as I responded to one of your questions at the hearing, COMSAT is already subject to a wide array of FCC-mandated safeguards, including structural separation, which are applicable to any new business opportunities falling outside the purview of our jurisdictional businesses, as well as comprehensive regulation under the Communications Act and Satellite Act for our INTELSAT and INMARSAT activities. However, to embrace an approach that is specifically designed to prevent COMSAT from responding to marketplace requirements while assuring preferential treatment for our competitors seems plainly inconsistent with your stated goal of a level playing field.

Privileges and Immunities

We are in total agreement that INTELSAT's "privileges and immunities" should be eliminated as soon as possible. The quickest way of realizing this objective is the privatization of INTELSAT and INMARSAT. As regards any immunities accorded COMSAT, they are available only to the extent that COMSAT acts as an instrumentality of the U.S. Government within INTELSAT. When we compete in the marketplace as a common carrier, we are afforded no such protections. Moreover, as I stated during the hearing, we would agree to give up our immunity today if the government is prepared not to subject COMSAT to an instructional process.

Direct Access

At the end of the hearing, you suggested that the concept of direct access be explored as part of the privatization process. The idea of allowing direct access to both INTELSAT and INMARSAT has been explored several times already. In fact, the FCC has reviewed direct access on three occasions and has concluded that it will not increase competition or lower costs to end users and therefore is not in the public interest.

The FCC stated that direct access would serve only to fragment the U.S. presence in INTELSAT and INMARSAT, balkanize the Signatory function and impair the Signatory's ability to represent U.S. interests. Among other things, this would have a negative effect on the ability of the United States to assist U.S. manufacturers of satellites and launch vehicles. To date, the U.S. satellite and related equipment industries have enjoyed benefits totaling $5.2 billion in contracts from the two organizations. In addition, the FCC has determined that direct access would slow down the instructional process and be costly and cumbersome to administer. It would also almost certainly lessen U.S. influence in promoting privatization.

These determinations by the FCC have been upheld in the federal courts on appeal. There is ample evidence showing that direct access is a bad idea. It is my hope that, after you have had an opportunity to consider this issue carefully, this will be your conclusion as well. In my view, privatization is the best way to deal with the competitive issues that direct access is supposed to address.

Regulation of COMSAT

One of your observations at the hearing was that the regulatory rules governing COMSAT might need adjustment, based on the concern that an unfair competitive advantage in the marketplace could be exploited prior to privatization. In fact, COMSAT has no such advantage today.

COMSAT competes vigorously with other members of INMARSAT for traffic through land earth stations. There is also formidable competition from other systems using different technologies, including high frequency radio, regional cellular and satellite. And soon, COMSAT will face competition from new mobile systems operating in different orbits.

With regard to our INTELSAT business, COMSAT submitted a study to the FCC on July 1, 1994, which, to my knowledge, is the most comprehensive and up-to-date study of the market for transoceanic telecommunications facilities that exists. The study was performed by The Brattle Group, a Boston economic consulting firm, under the supervision of Professor Hendrik S. Houthakker of Harvard University. The study concludes that today:

> "COMSAT faces substantial effective competition in all geographic and service market segments from existing and planned fiber optic cables and separate satellites, as well as from the threat of entry. Stated differently, while COMSAT possesses a legal monopoly on access to the INTELSAT system in the U.S., that franchise no longer confers upon COMSAT any market power." (Emphasis added.)

A copy of The Brattle Study is enclosed, and I commend it to you and your staff for close scrutiny. It tells a compelling story, based on publicly-available facts, about what is really happening in the international telecommunications marketplace.

Apparently, part of the basis for your proposal to look at adjusting the regulatory rules also appeared to be based on a 60% INTELSAT "utilization factor" that was referenced during the hearing. This figure can be misleading without an understanding of what it is intended to measure. Among other things, it does not take account of capacity on the INTELSAT system that cannot be used for reasons of intersystem frequency coordination constraints, technical failure and constraints, and satellite configuration constraints. It also does not reflect capacity on the system for which confirmed customer reservations have been placed for future use. Indeed, as of May 1994, approximately 80% of INTELSAT's operational capacity was in use or was subject to specific reservation for future use. Furthermore, it bears emphasis that satellites are sized to accommodate growth over their 15-year lifetime. At the beginning of their cycle, they are utilized less but fill up over time. From the day they are put into service, there must be sufficient unreserved capacity for growth. This explains why the utilization rate can never approach 100%. In addition, INTELSAT has an obligation to offer universal service to developing countries which drives the need for higher capacity and, as a result, lower utilization rates

Related to satellite utilization is the issue of orbital slots. INTELSAT has an obligation to provide global coverage and universal service. As a result, INTELSAT has been required to register sufficient orbital slots to carry out this mission. Concurrently, marketplace demands have increased significantly over time, and INTELSAT has had to register additional slots to be responsive. In total, INTELSAT has registered 24 orbital locations with the International Telecommunications Union (ITU). Currently INTELSAT has 21 satellites in orbit (two more will be added by the end of the year).

There are 13 satellites on order, 11 of which are designated to serve as replacements for satellites with less than 3 years of life remaining. Thus, INTELSAT's registration of slots and procurement of additional satellites is reasonable and not irresponsible. INTELSAT is simply acting in accordance with its operational requirements and marketplace demands.

In closing, I thank you again for the opportunity to testify last week, and I urge your continued leadership on timely action toward privatization. We look forward to working with you on these and other issues, and I will be happy to meet with you discuss these vital issues in more detail at your convenience.

Best regards,

Bruce L. Crockett

cc: The Honorable Jack Fields
Ranking Republican
House Subcommittee on Telecommunications
and Finance

The Honorable Reed Hundt
Chairman
Federal Communications Commission

The Honorable Clarence L. Irving
Assistance Secretary for Communications
and Information and NTIA Administrator

The Honorable Vonya McCann
U.S. Coordinator & Deputy Secretary of State for International
Communications and Information Policy

COMSAT
CORPORATION

Warren Y. Zeger
Vice President and
General Counsel

6560 Rock Spring Drive
Bethesda, MD 20817
Telephone 301 214 3610
Fax 301 214 7128

August 8, 1994

The Honorable Edward J. Markey
Chairman
House Subcommittee on Telecommunications
and Finance
316 Ford House Office Building
Washington, D.C. 20515

Dear Chairman Markey:

During your questioning of the U.S. government panel at last month's hearing on international satellite issues, you read an excerpt from the prepared remarks of Mr. Edward Cheramy of IDB Communications Group, Inc., regarding the content of, and the circumstances surrounding the negotiation of, IDB's long-term service contract with COMSAT Mobile Communications. Mr. Cheramy alleged that IDB had almost no leverage in these negotiations, and that COMSAT had insisted on contract clauses that forced IDB "not to participate in the regulatory or legislative process for 5 years." COMSAT believes that Mr. Cheramy's remarks presented an extremely distorted view of this transaction. Accordingly, Bruce Crockett has asked me to write you and offer COMSAT's views on this matter.

First, let me assure you that the contract negotiations between COMSAT and IDB involved entities with substantially equal bargaining power. In 1990, when these negotiations occurred, IDB was already an established company, with extensive satellite operations on other systems, including INTELSAT and Intersputnik. More importantly, however, IDB's mobile communications venture, IDB Aero•Nautical Communications, Inc., was (and is) 50% owned by Teleglobe Canada, the Canadian Signatory to Inmarsat and the monopoly provider of international satellite communications in that country. Moreover, IDB Communications Group, Inc. was itself 20% owned by Teleglobe Canada, so that Teleglobe actually controlled 60% of IDB Aero•Nautical. Thus, in negotiating with IDB, COMSAT was actually negotiating with another Inmarsat Signatory that was seeking a way to access the U.S. market even though its own market was completely closed to competition.

As you know, under Section 310(b) of the Communications Act of 1934, a common carrier radio license may not be granted to a corporation that is more than 25% controlled by aliens, absent a special public interest finding by the Federal Communications Commission. In light of the 60% Canadian ownership of IDB

Aero•Nautical, COMSAT could have invoked the regulatory process to block, or at least delay substantially, IDB's entry into the U.S. market. Rather than pursue such a strategy, COMSAT preferred to compete with IDB and its foreign partners in the marketplace. However, if COMSAT was to forego its opportunity to challenge IDB in an FCC proceeding, it only made sense to seek IDB's agreement that it too would not try to misuse the regulatory process for competitive advantage.

In addition, if COMSAT was to supply space segment to IDB pursuant to a long-term contract, it was only prudent to seek IDB's assurance that it would not attempt, through regulatory action, to restructure the industry and thereby undermine the basis on which that contract was predicated. Otherwise, IDB could have bargained for a discounted rate in exchange for a multi-year commitment, and then could have used the regulatory process to try to escape from its commitment -- while still taking advantage of the rate.

For these reasons, COMSAT decided to seek "regulatory peace" with IDB -- and, contrary to what Mr. Cheramy claims today, IDB welcomed that initiative. Attached as Exhibit A is a facsimile message sent by IDB to COMSAT on May 6, 1990. This message, which contains the outline of a "proposed COMSAT/IDB agreement," is devoid of any suggestion either that IDB believed it had no leverage in its discussions with COMSAT, or that IDB thought it was "selling its soul to the devil to get into business," as Mr. Cheramy now contends. To the contrary, the message clearly indicates that IDB knew and accepted the fact that it was engaged in a process of give and take with an evenly matched bargainer pursuing legitimate business objectives.

The agreement that the parties ultimately made (after several more weeks of intense negotiations) confirms that initial impression. Contrary to Mr. Cheramy's statements, both COMSAT and IDB obtained significant regulatory assurances as a result of the 1990 negotiations. Mr. Cheramy's testimony emphasizes only the provisions that COMSAT bargained for and won. But his testimony fails to mention that IDB knew it was extremely vulnerable to a challenge under Section 310 of the Communications Act, and that COMSAT's agreement not to pursue such a challenge was a major victory for IDB and its foreign partners.

Moreover, by attaching only a portion of the 1990 contract to his prepared remarks, Mr. Cheramy has obscured the fact that IDB received assurances from COMSAT with respect to several other regulatory issues. Attached as Exhibit B is a letter dated May 25, 1990, which I drafted and Mr. Cheramy co-signed. This letter sets forth the complete understanding between COMSAT and IDB with respect to regulatory matters. As is readily apparent, this understanding was fair and even-handed, and provided substantial benefits to both COMSAT and IDB.

Finally, it should be noted that, given its ties to Teleglobe Canada, IDB really did not give up very much in providing COMSAT with the regulatory assurances it sought. Mr. Cheramy complains that IDB "could not advocate direct access," and that it "had to agree to be regulated as a dominant carrier." But it is outlandish to think that the Canadian Signatory could have obtained direct access to Inmarsat in the United States while still maintaining a monopoly at home, and IDB Aero•Nautical's 60% foreign ownership far exceeded the Commission's 15% standard for the imposition of dominant carrier regulation.

Mr. Cheramy's testimony also does not tell the full story with respect to the commercial aspects of the 1990 COMSAT-IDB agreement. It is true that, after some very hard bargaining, IDB agreed to lease 14 million minutes of Inmarsat capacity from COMSAT over a five-year period. But what Mr. Cheramy fails to add is that, in exchange for this commitment, COMSAT agreed to give IDB very substantial discounts -- in excess of 25% -- off its regularly tariffed space segment rates. Without a bulk purchase by IDB, COMSAT could not have justified such large discounts.

IDB has now taken those discounts, filed rates that in many instances are lower than COMSAT's own, and in less than three years has become the sixth largest user of the Inmarsat system. Some of this market share has presumably come from COMSAT and some from other service providers, but the key point is that competition is working. Customers have more choices, rates are coming down, and with the introduction of digital services (which COMSAT is pushing hard), there will be substantial further improvements in the cost of both equipment and service. That is what competition is all about, and that is what COMSAT accepted, and welcomed, in agreeing to let the flawed IDB-Teleglobe venture go forward in the marketplace rather than fighting it at the FCC.

In sum, COMSAT recognized the trends toward liberalization and competition in international communications that were already well underway in 1990, and made the decision to compete with IDB rather than exploit regulatory entry barriers. Moreover, that decision was in keeping with a position that COMSAT has taken for many years. Since U.S. policy changed direction in the mid-1980s, COMSAT has consistently sought to compete solely in the marketplace and to use the regulatory process only as a last resort. In contrast, some of our competitors -- including, now, IDB -- have made it a practice to oppose virtually every COMSAT application, tariff, or policy initiative.

On all too many occasions, COMSAT's competitors have used regulatory (and legislative) proceedings not as vehicles to pursue legitimate policy objectives, but as mechanisms for deriving commercial advantage. In fact, it is often the case that parties begin regulatory proceedings solely to attempt to extract business concessions from COMSAT. In COMSAT's view, this is a misuse of the political process. Unfortunately, for some of our opponents, it is merely business as usual.

I appreciate the opportunity to provide you with the above information.

Sincerely,

Warren Y. Zeger

Warren Y. Zeger

cc: The Honorable Jack Fields
The Honorable Reed Hundt
The Honorable Larry Irving
The Honorable Vonya McCann

EXHIBIT A

OUTLINE OF
PROPOSED COMSAT/IDB AGREEMENT

This is the outline of what Bruce Crockett and Jeffrey Sudikoff agreed to on Wednesday, May 2, 1990 at Los Angeles.

IDB Wants	Comsat Wants
1. INMARSAT pricing at "Cost" plus _% with discounts below that for volume and term commitments	1. IDB standstill for ___ years on direct access.
2. Comsat file in support of IDB MSS applications a) 214 b) E/S's c) All future MSS	2. IDB standstill for ___ years on Comsat need to to segregate MSS retail business.
3. Comsat file in support of increased foreign ownership.	3. IDB standstill on stealing more than ___ Comsat MSS employees.
4. Comsat file in support of non-dominant status for IDB.	

EXHIBIT B

COMSAT
WORLD
SYSTEMS
DIVISION

Warren Y. Zeger
Vice President, Law

May 25, 1990

Robert S. Koppel, Esq.
Director, Legal and Regulatory
  Affairs
IDB Communications Group, Inc.
15200 Omega Drive
Rockville, MD 20850-3240

Dear Mr. Koppel:

Today IDB Communications Group, Inc. (IDB) and Communications Satellite Corporation (COMSAT) entered into an Agreement related to the provision of INMARSAT aeronautical and maritime space segment services, and to the resolution of certain regulatory issues. This Agreement establishes a cooperative customer-supplier relationship between our companies. In addition,-the Agreement establishes the principle that our companies will in good faith exert their best efforts to resolve regulatory differences on a business basis, without referring disputes to government agencies for disposition.

In keeping with the spirit of the Agreement, both companies have determined to apply this principle to future regulatory matters. Accordingly, COMSAT states that, absent a significant change in circumstances, it will not oppose or challenge, or aid or assist any other party in opposing or challenging (i) IDB's future FCC applications for authority to construct and operate AOR West and AOR East INMARSAT ground/coast earth station facilities; (ii) other future FCC applications of IDB to expand its INMARSAT ground/coast earth station facilities in the U.S. or around the world; (iii) IDB's future FCC applications to modify its INMARSAT ground/coast earth stations as regards the provision of additional operations, services and capacity; (iv) IDB's Section 214 applications to provide

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COMPANY CONFIDENTIAL -- This document contains confidential information.

services in the U.S. and around the world via the aforementioned INMARSAT ground/coast earth stations; (v) IDB's future request to the FCC for a waiver of dominant carrier status as regards INTELSAT earth stations and services, provided this request clearly excludes IDB's INMARSAT mobile communications business; and (vi) IDB's future request to the FCC for a Section 310(b)(4) waiver in regard to Swissair's acquisition of 5 percent of the capital stock of IDB. COMSAT's statement applies to the FCC, Executive Branch agencies, Congress and the Courts.

On the same basis, IDB has stated that it will not oppose or challenge, or aid or assist any other party in opposing or challenging, COMSAT's position as sole U.S. Signatory and sole U.S. operating entity for INTELSAT, and will not (directly, indirectly or in concert with any other party) take or support any actions that would impair the integrity of COMSAT's institutional roles as the U.S. Signatory and operating entity for INTELSAT. Furthermore, IDB states that, absent a significant change in circumstances, it will not oppose or challenge, or aid or assist any other party in opposing or challenging: (i) COMSAT's future FCC applications for authority to implement interconnection agreements extending COMSAT's INMARSAT mobile comunications services to and from COMSAT's INMARSAT ground/coast earth stations; (ii) COMSAT's future FCC applications to modify its INMARSAT ground/coast earth stations as regards the provision of additional operations, services and capacity; (iii) other future FCC applications of COMSAT to expand its INMARSAT ground/coast earth station facilities in the U.S. or around the world; and (iv) COMSAT's Section 214 applications to provide services via the aforementioned INMARSAT ground/coast earth stations. IDB's statement applies to the FCC, Executive Branch agencies, Congress and the Courts.

If regulatory differences between our two companies arise, our companies will first discuss any such concerns in a good faith effort to resolve differences cooperatively, before invoking the regulatory process or pursuing other governmental recourse.

Furthermore, IDB has requested written confirmation that COMSAT will not furnish or disclose its draft "Petition to Deny", prepared in connection with IDB Applications FCC File Nos. I-T-C-90-088 and CSG-90-042-ML, to any third party as an indirect means of supporting opposition to IDB's INMARSAT mobile services entry plans. COMSAT hereby gives that confirmation.

This letter does not in any way impair the undertakings and obligations assumed by the two companies in the May 25 Agreement.

As used in this letter, the terms "IDB" and "COMSAT" include the subsidiaries and affiliates of each company.

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Assuming this letter accurately reflects our joint understanding and represents IDB's position on the matters addressed, kindly sign one copy and return it to me.

Sincerely,

Warren Y. Zeger

Warren Y. Zeger

Accepted and Agreed on behalf
of IDB

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